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MODERN MEDICINE AND THE PUBLIC HEALTH.¹

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It is a noteworthy coincidence that the centennial of the Medical College of this University is also the semicentennial of that reformation of medical education in the United States, which, in its own field, is worthy to be compared with the sixteenth century reformation in theology. One hundred years ago was born in Cincinnati that medical college the centennial of which we now celebrate. Fifty years ago began in Boston—the birthplace of American revolutions—a revolt against the then prevailing laxity of medical education, a nineteenth century reformation which laid the foundations of modern medical education and modern medicine in the United States. The Martin Luther of that medical reformation was Charles William Eliot, then the new and youthful president of Harvard University.

Before 1870 even our best medical schools welcomed, without any educational entrance requirements whatsoever, all students who could pay the prescribed fees. Instruction consisted almost entirely of lectures, the only laboratory open to students being the dissecting room. The lectures were given by practitioners usually too busy to prepare themselves properly, before students often too indolent or too ignorant to profit by them. The school terms, of which only two were required for the degree, were very short—generally about four months each. Hence it was sometimes possible to get the medical degree within a single calendar year. As late as 1887 it was reported as an important fact in American medical education that the terms of our medical colleges had recently been increased from an average of 23.5 weeks to one of 24.9 (i. e., by one-half week), or to nearly six months!

Entrance examinations were held for the first time by the Medical School of Harvard University in 1877, and then only 13 candidates presented themselves, of whom six passed and seven failed. As for the characteristics and bearing of medical students in those days.

¹ Address delivered at the centennial celebration of the Medical College of the University of Cincinnati, Nov. 6, 1920.

President Eliot said in his annual report for 1879-80: "It is notorious that medical students have been, as a rule, a rougher class of young men than other professional students of similar age." And this was a conservative statement.

At the turning of this low tide I was myself a student in a reputable medical school, and I well remember how much interest was felt in the Harvard experiment, especially by those students who knew that they could not possibly have passed any entrance examinations, however easy, and how much hope for the future was kindled by this forward step among those of us who already held college degrees. Very gradually that hope was fulfilled. Medical courses were extended to three years and then to four, entrance examinations were set up to keep out the poorest of the raw material, laboratories were established, and to-day we are beginning to have whole-time professors ready to exchange the possibly great rewards of private practice for the secure satisfactions of teaching, of study, of research, and of the intellectual life.

When I was in a medical school in 1877 the students went all day from one lecture to another, listening to a stream of words upon every subject in the curriculum, poured out upon everybody, even beginners, in the first year, and repeated, practically unchanged, in the second. No examination was held until the end of the two years, and then the examinations were brief and very easy. Chemistry was expounded by lectures and lecture demonstrations, but without any laboratory practice, and was of the most elementary sort—far below that now obtained by freshmen in colleges and technical schools—and physiology was presented, without laboratory work of any kind, through recitations from a textbook by a young physician, uninformed as to the subject, who had merely taken a similar course under another physician equally ignorant of physiological science. I shall never forget my regret that I had been born too late; for I gathered from the tone of the textbook and the teacher that everything in physiology was already known; that there was therefore nothing under debate, nothing to be settled, nothing new to be discovered. Pathology, what there was of it, was mostly a poor kind of pathological histology demonstrated by miscellaneous and mostly inferior microscopes. It was taught by an old gentleman lately returned from the Orient, where he had long served as a medical missionary. *Materia medica* and therapeutics were lectured about by a busy practitioner, with occasional illustrations of plants supposed to possess medicinal properties. Obstetrics was likewise taught entirely by lectures, without demonstrations or practice of any kind whatsoever. In this subject, as in most others, a number of books were named for reference, but in this case one prominent treatise was not mentioned. Word was passed down from the upper

class that this book, about which the professor had said nothing, was the one from which he drew his lecture material—with the result that the class promptly purchased the one book not recommended and abjured all the others. Theory and practice were given by a physician from a neighboring city who had there a large private practice and was also medical adviser to an important insurance company. This man was, nevertheless, an excellent teacher, and the class really learned a good deal from him and from the books which he advised us to read. The brightest spot in the school was the instruction in surgery, which was taught by a really eminent surgeon, who, however, was overwhelmed with private practice in a large city some 50 miles distant. By him we were taught chiefly through clinics, and I well remember his skeptical but still open-minded attitude as he referred to the antiseptic method (which for him was the antiseptic spray) of Joseph Lister, a method then barely 10 years old, and making its way only very slowly in a profession noted for its conservatism.

Something like this, in the seventies, was characteristic of all the medical schools of the United States; but a new day was about to dawn. Before very long entrance examinations were established in most of the better medical schools. The two years course became three years and, later, four years; laboratory procedures were introduced, not only in chemistry, but also in physiology, in obstetrics, in surgery and in medicine; and all along the line improvements came thick and fast, so that it is now impossible to recognize in the medical school of to-day any resemblance to that earlier type. The requirements are now so thorough and severe that the degree of Doctor of Medicine, which 40 years ago was utterly unworthy to be compared with the degrees of Doctor of Philosophy and Doctor of Science, is to-day in our best schools as difficult to obtain as (and, with the single exception of the amount of research required, in every respect equal to) the degree of Doctor of Philosophy. Indeed, it is probably superior in difficulty of achievement to that degree as it is sometimes given.

I shall not undertake to describe the marvelous medical colleges of to-day. Housed as they sometimes are in veritable palaces, provided with splendid lecture rooms, libraries, and laboratories, and equipped with abundant appliances for instruction and research, they afford to those who, like myself, recall the medical schools of the previous generation, a delightful contrast. I need only suggest a variant of the famous epitaph of Sir Christopher Wren in St. Paul's Cathedral: "If you would see a modern medical school look about you." Together with these wonderful transformations has come to pass that development of medical science and medical service which we proudly call Modern Medicine. It was only 50 years ago that

Semmelweiss's discovery of the dangers of dirt, and Lister's method of counteracting infection in surgery, became serviceable. It is less than 50 years since Pasteur and Koch and their disciples established the surprising fact that the communicable diseases are due to microbial parasites, and revealed to an astonished world a wholly new pathology. It is only 30 years since the corner stones of immunology and serology were securely laid by Pasteur and Metchnikoff and von Behring and Kitasato; and to bring us to a realization of how wonderful are the developments of those arts and sciences to-day we need only summon to testify, diphtheria antitoxin, typhoid vaccination, the Wassermann test, and salvarsan. I spare you praise of modern surgery with its glorious triumphs over such plagues as appendicitis and gastric ulcer and incipient cancer. Before achievements such as these, the whole world stands speechless in awe and admiration.

Happily, modern medical education has for the most part advanced hand in hand with modern medicine. Our best medical schools are to-day temples of medical science and training schools of medical engineering. Their courses are long and arduous, their standards are high, their instruction is sound, thorough, and conscientious. They prepare their pupils admirably for institutional service and for private practice. Their graduates are well qualified as ministers of that original and fundamental function of the physician, viz, the practice of the healing art.

There is, however, one vast and important field of modern medicine thus far sadly neglected by all medical schools, even by the very best, and that is the field of the public health. We have outgrown the ancient point of view which held that "they that are whole need not a physician but they that are sick," for we believe that the maintenance of the public health (i. e., the health of the people), is no less important, and often easier, than is the cure of their diseases. It was probably no mere coincidence which in 1869 led to the establishment of the first of our State boards of health—viz, that of Massachusetts—and in 1872, of the city board of health of Boston, almost contemporaneously with the first fruits of the labors of Pasteur and Lister and Semmelweiss, and with that reformation of medical education in America to which I have already alluded. To-day we have in every one of our 48 States a State department of public health, for the proper administration of which at least 48 experts in public health and sanitary science are needed, with two or three times as many more for field or laboratory work. The United States Public Health Service also requires scores of qualified public health officers, and finds great difficulty in obtaining them. Still others are needed by the Army and the Navy, while hundreds of American counties, cities, towns, and rural regions, either already have or should have whole-time, trained, health officers. Private health

agencies, also, such as the International Health Board of the Rockefeller Foundation, numerous antituberculosis societies, the Red Cross, and many others, are at present handicapped in their beneficent undertakings by finding it almost impossible to fill the places which they have with competent, trained personnel. The field of industrial medicine and industrial hygiene is also calling loudly for trained workers; while school physicians who are really expert, mental hygienists, social hygienists, and dental hygienists are likewise greatly needed. And yet, although these facts are patent, we do not find our medical schools, even those of the most modern type, giving much, if any, attention to the Macedonian cry of the hour for training in public health.

This is the more strange, since the beginnings of preventive medicine in the eighteenth century, with inoculation and vaccination for smallpox, and the first steps in experimental medicine, which were taken in establishing the validity of these procedures, have always rightly been regarded as one of the most brilliant benefits conferred on suffering humanity and among the brightest stars in the medical firmament. It is true that from Jenner in 1796 to Pasteur in 1877 the intervening 80 years saw but little progress in preventive medicine. But meantime preventive sanitation arose, with the factory acts of 1802, the installation of public water supplies, the introduction of the water-carriage system of sewerage, with water closets, bathtubs, and plumbing; with garbage, sewage, and refuse collection and disposal; with heating, lighting, ventilation, and disinfection; with convenience stations, public-drinking fountains, and abolition of the common towel and common drinking cup; with the registration of vital statistics and the beginnings of public-health nursing—all of which should have interested the physician hardly less than the sanitary engineer. We can understand that all this complex preventive sanitation may have seemed somewhat outside the field of the physician; but it must certainly be accounted strange that the renaissance of preventive medicine since it once began (about 40 years ago), after its 70 years' sleep, and especially as it has been rapidly growing more important ever since, has not been able to win for itself a high place in modern medical training. The fact is that hygiene and the public health, and even preventive medicine, have thus far had scanty recognition in our medical schools. Without pausing to deplore this notorious fact I pass on to point out what I believe to be the remedy—a remedy, moreover, which the medical college of a great municipal university like that of Cincinnati would seem peculiarly well fitted to initiate.

The medical curriculum of to-day is for the most part a strong single track, a narrow one-way road, leading straight to one great terminal—the ancient, well-known, and famous metropolis of the

medical degree. To have conceived and constructed and safeguarded and enriched this long and highly graded road, fenced in everywhere against interlopers, and discouraging to set out upon for all excepting those of fitness and attainment, is the great achievement of the generation now passing off the stage. But since 1870 another great, though more modern, city has grown up, apart, but not far from, the original terminal, and a strong branch road is now badly needed, beginning halfway up the line, which shall carry some of the many travelers to this new and thriving suburb, of which the name is "Public Health." Those arriving here should receive the degree of Doctor of Public Health instead of Doctor of Medicine, and should become practitioners, not of medicine, but of the science and arts of the public health.

Instead of the present rigid medical curriculum which resembles the capital letter I, we ought to-day to have a new curriculum of equal height and breadth, but shaped like the capital letter Y, of which the base should still be substantially the first two years of the present curriculum—*anatomy, physiology, bacteriology, pathology, etc.*—but with its upper parts diverging, the one arm or branch leading as now in the last two years to the degree of Doctor of Medicine (M. D.) and the other in the last two years to the degree of Doctor of Public Health (D. P. H.). That medical school which first begins this reformation will seize a golden opportunity. It is right to provide generously for curative medicine—for surgery, for obstetrics, for gynecology, for otology, for ophthalmology, etc. But the medical school which fails to-day to provide also liberal instruction in preventive medicine, in vital statistics, in sanitary science; in public health laboratory methods, in epidemiology; in preventive sanitation, such as the sanitation of water supplies and other branches of municipal sanitation; in preventive hygiene, such as mental, social, personal, and dental hygiene; and in public health education and public health administration—that medical school is sending out its graduates unprepared for some of the most serious problems they will have to face in the immediate future. The census of 1920 shows that our people lately rural, are rapidly becoming urban, and urbanization spells sanitation.

Obviously, all these subjects can not be injected into a curriculum already overcrowded. The only way out is to recognize the situation, and to meet it squarely by erecting a separate superstructure for public health training upon the same foundation which already underlies medical training, replacing surgery, obstetrics, gynecology, *materia medica*, therapeutics, pharmacology, and other purely medical subjects by subjects in public health, such as those just mentioned. The medical man without further training has been tried as a modern health officer, and, broadly speaking, found wanting; and it is for this reason that special schools of hygiene and public health are springing up here

and there. These, however, are, and long will be, wholly inadequate to supply the needs of the time, and our only hope at present for any adequate relief is that the medical schools of the land shall seize the opportunity that is theirs, to divert into the public health channels, with proper preparation, some of the talent now going into medicine. If what we hear of the coming "socialization" of medicine—by which we mean that tendency now everywhere discoverable to substitute physicians employed and paid by the State for physicians dependent on private practice—be true, such a diversion can not come too soon.

Since this paper was written it has come to my attention that the Harvard Medical School has this summer established the degree of Doctor of Medical Sciences (D. M. S.) for the benefit of those who, having satisfactorily completed the first two years of the medical school, desire to devote the last two years exclusively to one of the medical sciences. This is obviously a long step in the right direction, since a student desiring to enter the field of the public health may now do so, with special preparation and without waste of time. The degree of Doctor of Medical Sciences will not, however, be either sought for or valued as the degree of Doctor of Public Health would be, by those engaging in public health practice. For them it will be much as it would be for those about to practice medicine to hold the degree of D. M. S. instead of M. D.

It is said that the medical colleges of the United States in the eighteenth century (1762) were on a very high level; that they then began to lower their standards and that—as we have seen—in the nineteenth century the requirements for the degree sank very low. However, all this may have been, there is no doubt that to-day, in the twentieth century, medical colleges like this one whose centennial we are celebrating stand among the highest and the best of the educational institutions, not of our country only but of the world. The degree of Doctor of Medicine has been rescued from its low estate and is now the peer of any doctorate.

I bring to you, Mr. President, and to you, gentlemen of the board of directors, to you, members of the faculty, to the student body, and especially to the citizens of Cincinnati, of which this college is an ornament and a distinction, the congratulations and felicitations of other educational institutions of our land. If in the future you shall make it possible to add to the excellent medical education which you now give, education in the public health, i. e., in the health of the people, in preventive medicine, in preventive sanitation, and in preventive hygiene, opportunity for which is nowhere so great as in a municipal university, because of the close association which such a university enjoys with departments of public health and public water, public sewers, and public schools, public buildings, public streets, public baths, and public gymnasias—all

of which stand available for educational cooperation and research—you will not only deserve and win the applause of a grateful community, but you will blaze the way for a reform imperatively needed in other medical colleges. Modern medicine must provide a training for the practice of the public health no less rigorous than that for the practice of medicine; for the public health is the health of the people, and, as the Latin phrase puts it, *Salus populi suprema lex*.

A PRELIMINARY STUDY OF THE PHYSIOLOGICAL EFFECTS OF HIGH TEMPERATURES AND HIGH HUMIDITIES IN METAL MINES.

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Introduction.

One of the most important problems encountered in present-day metal-mining practice is that of providing efficient ventilation, especially in those mines which have high air temperatures and high relative humidities in extensive workings at considerable depths, or in workings where mine fires are found or where there is much oxidation of timber or of ore. It has long been recognized that mine workers subjected to hot, humid, stagnant air and to certain harmful dusts in many of our metal mines contract miners' consumption and possibly other diseases; and although considerable study has been made of the effects of dusts, temperatures, and humidities in mines of England,¹ South Africa, and of some European countries,² very little of this kind of study has been done in the United States, especially as regards the effect of high temperatures and high relative humidity in our mines.

The following study was made in two comparatively deep copper mines, both with fairly high temperatures and humidities, one in which practically no attempt at ventilation was made and one with a ventilation system of a much more efficient nature than is generally found in metal mines. In both mines the data were taken at points over 2,000 feet below the surface and with surrounding rock temperatures generally in excess of 90° F.

In general, the following data were taken: Surface air temperatures and relative humidities and body temperature, blood-pressure readings, pulse, time of day. Data taken underground at each place visited included temperature and humidity readings of air in working places, occasionally rock and water temperatures, temperature of compressed-air blowers, air movement or velocity, kind of work being performed, exact time of day, number of workers, and bodily tem-

¹ Haldane *Journal of Hygiene*, Vol. V, pp. 494, 1905.

² Oliver: *Diseases of Occupation*.

perature, blood pressure, pulse rate, and other data, of those persons on whom or by whom the experimental work was being done. The following instruments were used: Sling psychrometer for air, rock, and water temperatures, and for relative humidity; Davis anemometer for air velocities; Tycos sphygmomanometer, aneroid type (checked at intervals with a mercury instrument), for obtaining blood pressures; and 2-minute Tycos clinical thermometers for taking body temperature. All readings on persons were taken with the subjects standing.

Investigations in Mine No. 1.

On three consecutive days the investigators entered a mine (designated No. 1) for purpose of taking data as to effect of high temperatures and high relative humidity in stagnant air, there being no attempt at ventilation of the mine other than from compressed-air blowers which, however, furnished sufficient air to prevent excessive vitiation. On the first day, data were taken on five subjects, A, B, C, D, and E; and on the two succeeding days, on A, B, and C. No work was done other than to walk slowly a few thousand feet underground and to take the necessary readings as to temperature, humidity, velocity, and blood pressure, and in only one instance did the investigators leave the level to climb a few feet into a stope. While underground, A was dressed in heavy woolen underwear and trousers; B, C, D, and E were dressed in light cotton underwear, knee-length light trousers. A was about 40 years of age, weight 120 pounds; B about 36 years, weight 150 pounds; C about 32 years, weight 150; D about 28 years, weight 160; and E about 32 years, weight 160. D and E were accustomed to perform nearly all kinds of work underground in hot mines; whereas A, B, and C were not, although they were well accustomed to spending much time underground on investigative work.

Table I gives compiled data as to readings taken on the three days in Mine No. 1, and an inspection of that table shows that the investigators were in the hot region 120 minutes on the first day, 90 minutes on the second, and 115 minutes on the third (it had been the intent to remain underground at least four or five hours each day, but the effect of the hot, humid, stagnant air was so great that the investigators were physically unable to remain underground much longer than the length of time given). It is significant that although A, B, and C had been accustomed to go underground regularly prior to making this investigation, yet at the end of the three days, during which time a total of but 5 hours and 25 minutes were spent underground doing only such light work as walking on level ground and taking temperature, blood pressure, and other readings, A lost 6 pounds and B lost over 5 pounds in weight, and C, though he did not weigh, lost perceptibly in weight, and all were seriously fatigued each day after leaving the mine.

TABLE I.

Location.	Time in minutes after entering mine.	A.			B.			C.			D.			E.			Air conditions.			Compressed air blowers.			Water temperature.	
		Systolic.	Diastolic.	Body temperature.	Pulse.	Systolic.	Diastolic.	Body temperature.	Pulse.	Systolic.	Diastolic.	Body temperature.	Pulse.	Systolic.	Diastolic.	Body temperature.	Pulse.	Wet bulb.	Dry bulb.	Relative humidity (per cent).	Wet bulb.	Dry bulb.		Relative humidity (per cent).
FIRST DAY.																								
On surface.....	118	78	98.8	.....	110	76	99.4	.....	108	76	99.6	.....	116	70	99.6	.....	58	66	.....	82	94	60	97 1/2
Face of crosscut.....	20	116	78	.....	99.8	108	106	74	101.2	100	106	70	100.0	90	96	78	52	94	.....	73	91	41 1/2	97
Face of drift.....	80	112	68	.....	140	101.8	120	104	64	101.6	62	102.0	118	110	78	102.0	90	96	.....	80	86	100	.....
2,500-foot station.....	110	104	62	.....	120	102.6	120	106	68	102.6	60	102.0	138	102	58	102.8	120	92 1/2	94	96	.....	.....	.....
On surface 10 minutes before bath.....	130	96	58	.....	144	102.6	140	92	48	102.4	42	.....	.....	80	40	102.2	106	58	69 1/2	.....	.....	.....	.....
SECOND DAY																								
On surface.....	106	78	99.3	.....	96	72	99.4	.....	72	.....	.....	.....	.....	.....	.....	.....	55	61	.....	.....	.....	.....	.....
2,400-foot station.....	10	106	82	.....	108	96	78	.....	88	76	.....	.....	.....	.....	.....	.....	92	92 1/2	.....	.....	.....	.....	.....
Intersection SW. and main ledge.....	60	112	88	100.8	138	92	70	100.2	124	94	76	100.4	112	.....	.....	.....	94	94 1/2	.....	78	92	53	94 1/2
On surface 10 minutes.....	100	96	68	101.3	112	88	72	100.6	96	90	68	100.6	1108	.....	.....	.....	57 1/2	69 1/2	.....	48	.....	.....	.....
On surface 1 hour.....	160	96	78	99.1	92	96	78	99.6	88	94	72	100.5	2 76	.....	.....	.....	57 1/2	69 1/2	.....	.....	.....	.....	.....
On surface 2 1/2 hours.....	190	112	86	98.3	108	98	76	98.8	96	110	82	.....	82	.....	.....	.....	57 1/2	69 1/2	.....	.....	.....	.....	.....
THIRD DAY.																								
On surface.....	108	72	98.3	104	98	76	98.8	96	72	.....	.....	.....	.....	.....	.....	.....	55	67	.....	.....	.....	.....	.....
Face NW. drift.....	40	104	68	99.8	124	98	82	99.2	100	94	70	99.2	80	.....	.....	.....	91	91 1/2	.....	.....	.....	.....	.....
2,400-foot station.....	110	102	68	102.5	142	90	68	100.6	128	98	62	101.2	130	.....	.....	.....	90	92 1/2	.....	81	86	81	91
On surface 10 minutes.....	125	98	74	100.9	138	90	70	100.6	118	88	68	100.7	4 120	.....	.....	.....	60 1/2	79	32	.....	.....	.....	.....
On surface 20 minutes.....	145	88	68	100.9	128	98	74	100.2	96	92	66	100.5	6 104	.....	.....	.....	60 1/2	79	32	.....	.....	.....	.....
On surface 2 hours.....	245	112	78	98.3	108	112	84	99.2	96	112	78	99.1	8 98	.....	.....	.....	60 1/2	79	32	.....	.....	.....	.....
1 No bath taken to-day.																								
Before eating.																								
After eating.																								
Before bath.																								
After bath.																								

1 No bath taken to-day.

Before eating.

After eating.

Before bath.

After bath.

During the three days in Mine No. 1 there was no period at which the investigators were in a temperature (either wet or dry bulb) less than 90° F. (and in many cases the dry bulb reading was above 95° F.), and at all times there was absolutely no perceptible movement of air except that which could be obtained immediately in the current of the compressed-air blowers. Even the compressed-air blowers (see also Table I) had dry-bulb temperatures above 85° F., and in many cases they were over 90° F., the temperatures being taken at the end or nozzle of the compressed-air hose. Although the compressed-air temperatures were nearly as high as those of the surrounding air, yet the high velocity and the comparatively low humidity of the direct current gave at least a temporary measure of relief, and this constituted the only available relief from the extremely depressing conditions.

Table I shows that blood pressure fell decidedly when the subjects were exposed to stagnant, humid air with temperatures over 90° F. and below 100° F., and that a decided fall in blood pressure was found immediately upon reaching cooler, purer air of the surface after having been exposed for about two hours to the above-described unfavorable conditions. For considerable time after reaching the surface the rise in blood pressure was slow, even when the subjects took a hot shower bath with a finishing dash of cold water; it was not until after eating, one to two hours later, that blood pressure rose, and then it jumped somewhat higher than before the subjects went underground. It is noted, too, that blood pressures taken on the surface before going underground on the first day were higher than similar readings taken under similar conditions on the second and third days, probably indicating at least a temporary depression of general vitality after having been underground.

Body temperature rose at the rate of approximately 1° F. per hour on exposure to stagnant air with wet and dry bulb temperatures between 90° and 97° F., even when no work was being done other than leisurely walking along level haulage roads. This increase of body temperature continued until 102.8° F. was reached in one case and approximately 102° F. in the other cases, or fever temperatures throughout. After having been underground for about two hours under conditions described above, temperature decrease took place in still surface air about 70° F. and 50 to 60 per cent relative humidity, at the rate of about 1° F. per hour, apparently being comparatively little influenced by a hot shower bath followed by a final dash of cold water.

Pulse increased rapidly upon entering and remaining in this hot humid air, and after having been in this atmosphere for about two hours doing little or no work as above described, it had reached as high as 130 and occasionally 140 or over. Upon returning to the

surface a comparatively rapid decrease of pulse rate was noticed; however it did not reach the same rate as that before going underground for several hours. In general, pulse rate was high in the hot, humid, stagnant air, and it seemed to be abnormally sensitive to even the slightest exercise. It was found to rise rapidly even in the case of subjects who had been accustomed to hard work under such conditions, as well as in the subjects of this experiment.

During the first day all five subjects stated that they felt dizzy within 20 minutes after entering the hot, humid, stagnant air, and within an hour all felt weak. B was very nervous after an hour's exposure, and later had alternate hot and cold sensations; C had a dull headache; and all subjects perspired very freely; all appeared unable to think quickly or accurately after less than one hour's exposure. On reaching the surface, all felt well except B, who was very weak for about 15 minutes; all complained of feeling somewhat weak the remainder of the day, and A, B, and C did not sleep very well that night, but D and E, more accustomed to hard physical work, slept well.

On the second and third days only A, B, and C went underground, and the symptoms experienced on these days were similar to those felt on the first day, but in a somewhat milder degree. However, after the three days' experimentation in which a total of less than five and one-half hours was spent underground, the exhausting effect of stagnant, humid air with temperatures between 90° and 97° F. was shown in the fact that A and B (C not weighing) each had lost over 5 pounds in weight, though no work was done of a more arduous nature than leisurely walking in unobstructed level drifts.

Table II contains some observations made on five miners who volunteered, all being healthy, robust men except V, who was pale and thin (he had worked 14 years in this mine). While underground these men dressed in shoes and trousers or overalls usually cut off just above the knees. Underwear or shirts were not worn. The first set of readings was taken before the men went underground, the second was taken underground at the shaft station just prior to hoisting the men after having worked their shift, and the third was taken 25 minutes after the men had reached the surface, and all except V had taken their shower bath. No temperature readings were taken.

It will be noted that except in case of Z, blood pressure had fallen perceptibly after 7½ hours underground in humid, stagnant air with temperatures between 90° and 95° F.

Blood pressure reacted practically to normal in the cases of W and Z after shower bath, these two men having worked in this mine 11 days and 4 months, respectively; and in case of X, who had worked 12 days, blood pressure had increased perceptibly after the

TABLE II.

Location.	Time between readings, in hours.	V. ¹			W. ²			X. ³			Y. ⁴			Z. ⁵			Air conditions.		Relative humidity (per cent).
		Sys. tolie.	Dias. tolie.	Pulse rate.	Sys. tolie.	Dias. tolie.	Pulse rate.	Sys. tolie.	Dias. tolie.	Pulse rate.	Sys. tolie.	Dias. tolie.	Pulse rate.	Sys. tolie.	Dias. tolie.	Pulse rate.	Wet bulb.	Dry bulb.	
On surface.....	.....	116	82	78	132	86	96	142	92	80	116	72	72	118	76	78	55	61	68
2,400-foot station.....	.....	92	66	124	122	92	104	92	68	118	104	70	120	116	78	108	92½	92½	100
On surface 25 minutes.....	71 83	88	64	108	134	92	118	116	82	108	92	66	116	118	80	96	60½	79	32

¹ Readings as to V were taken previous to bathing; as to others, after bathing. V had worked 14 years on hot levels.

² W had worked 11 days on hot levels.

³ X had worked 12 days on hot levels.

⁴ First day that Y had worked in the mine in 6 months.

⁵ Z had worked 4 months on hot levels.

bath. On the other hand, in the case of Y, who had worked his first day underground in 6 months, blood pressure had fallen perceptibly after the bath, apparently indicating that workers who were accustomed to the conditions had acquired a certain tolerance or at least were not as sensitive as were persons unaccustomed to the conditions. But in the case of V, who did not bathe after returning to the surface, there was a slight drop of blood pressure. He had worked in this mine 14 years, was pale and thin, but was active and apparently was not physically exhausted by $7\frac{1}{2}$ hours underground to the same extent as were the other more robust men. His work is much less arduous than that of the other men, as he is a shift boss.

The pulse rate had risen perceptibly by the time the men had spent seven and one-half hours underground, and, except in case of W, fell quickly after the men reached the surface. W showed a pulse rate increase as well as increase of blood pressure after reaching the surface. However, after having been on the surface practically one-half hour after the end of the underground shift, the pulse rate remained perceptibly above normal in every case.

These men, with the exception of Z, stated that they were weak at the end of the shift, and Y said he was weak and dizzy several times during the shift. All said that they felt well, even if slightly weak, after they had taken the shower bath. Men in this mine work wear practically no clothing, and while underground they drink large quantities of water, which is brought there in kegs and kept cooled in ice. Miners who wear underclothing underground are frequently seen wringing the perspiration out of it. A surveyor in this mine stated that after two or three hours' work in the hot, humid, stagnant places in this mine in the forenoon, he and his assistants sleep the entire afternoon as well as the night, in order to be physically able to spend a like two or three hour shift the next day. Shift bosses who have worked some years in this mine state that they frequently feel dizzy and weak after taking even moderate exercise, such as climbing a ladder into a stope. These shift bosses are invariably pale and thin; they state that they have much less endurance than formerly, and that they "take things easy" and allow the men under them to do likewise. A cage tender who practically divides his working time between the surface and the hot, stagnant shaft stations of lower levels, stated that after eight months of such work he had lost 20 pounds. Three men quitting work after one shift appeared weak; two of them said they were dizzy, and one said he felt nauseated.

Notwithstanding the obviously unhealthful conditions in this mine, the miners present a generally robust and healthy appearance. This is probably due to three main reasons: First, knowing the conditions, the foreman employs only very strong, healthy looking men; second, the men are never hurried or rushed by the shift boss, and, in fact, are

told to "go easy" and "take five" frequently; third, men employed continuously in the hot, humid, stagnant air generally remain for only a few months. It was stated by the foreman that at least 50 per cent of the men employed worked one shift or less, but that if they can last a week they usually remain several months. Though the monthly labor turnover was over 100 per cent, plenty of men were available, as the mine is located close to the heart of a large mining community. The men are expected to work a seven instead of the customary eight hour shift, for which they receive 25 cents per day more than employees of neighboring mines with an eight-hour shift; and, as before stated, the workers are rarely if ever hurried by the bosses.

The efficiency of the workers is somewhat difficult to gauge; yet it is certainly much less than 50 per cent of that of similar workers in other mines. At working faces, while one machine man or mucker works, his companion rests in the full stream of a compressed-air blower, the men exchanging places at intervals of 20 to 30 minutes and *frequently both rest*. Moreover, the man working the short interval at the face must work at reduced pressure; for instance, two men at the face of a drift in this mine in still air, with 96° F. wet bulb and 94 per cent relative humidity, muck about 12 tons per shift; whereas in a drift in an adjoining mine, less than 1,000 feet away, in *moving air*, with 82° F. wet bulb and 82 per cent relative humidity, two men muck 30 tons or over per shift. The average of about 30 readings taken at all working faces of this mine gave wet bulb 93.3° F., dry bulb 94.4° F., and a relative humidity of 96 per cent, and at no place was there any perceptible movement of air except at points close to compressed-air blowers. However, while the resultant conditions were undeniably depressing, little or none of this effect was attributable to air impurity as little or no smoke was encountered, and analyses of air samples taken at working faces showed little or no vitiation, the large amount of compressed air from blowers apparently keeping the quality of the air good but not being of sufficient quantity to give the necessary velocity to cause cooling by evaporation.

Investigations in Mine No. 2.

A second series of readings was taken on two days in Mine No. 2, a deep mine with extensive workings. This mine, while more efficiently ventilated than most metal mines, has high rock temperatures, and practically any desired condition as to temperature, humidity, and air movement is obtainable. In this mine the workers are supplied with fresh city water at a temperature of about 65° F., and they say that they can drink large quantities of the water without ill effect. The men generally work in a suit of underwear, trousers, and shoes, and upon leaving the mine put on a woolen shirt and a heavy coat.

TABLE III.

Location.	Time, in minutes, after leaving surface.	A.			B.			C.			D.			Air conditions.		
		Sys-tolic.	Dias-tolic.	Tem-perature.	Pulse rate.	Sys-tolic.	Dias-tolic.	Tem-perature.	Pulse rate.	Sys-tolic.	Dias-tolic.	Tem-perature.	Pulse rate.	Wet bulb.	Dry bulb.	Relative humidity (per cent).
On surface.....	000	112	76	98.4	108	102	76	99.6	96	106	76	99.4	84	55	67	45
Face of X cut.....	10	108	72	99.7	120	106	80	100.0	96	102	74	100.0	88	90	97	89
Do.....	25	112	68	99.8	122	107	82	100.0	100	100	74	100.0	100	91	97	89
Do.....	45	108	72	101.5	134	108	84	100.6	132	100	74	100.9	108	91	97	89
Do.....	70	98	68	101.8	135	98	78	101.4	130	100	76	101.5	128	94	97	89
Canvas air pipe.....	95	105	82	100.9	120	101	72	101.2	120	106	78	101.8	112	82	89	72
On surface 10 minutes.....	165	100	72	100.5	130	101	72	100.6	120	102	74	101.0	98	58	82	80
On surface 2.3 hours.....	295	106	80	.....	.....	100	72	99.6	100	110	70	.....	76	.....	.....	23

A, B, C, and D entered Mine No. 2 about two weeks after completion of the readings in Mine No. 1, and spent over an hour the first day at the face of an abandoned crosscut in practically stagnant air, wet bulb $94\frac{1}{2}^{\circ}$ F., dry bulb $97\frac{1}{2}^{\circ}$ F., and relative humidity 89 per cent. All were dressed essentially the same as they were in the investigation in Mine No. 1, and on this first day (see Table III), A, B, and C remained practically at rest for about 70 minutes. There was comparatively little change in blood pressure during the first 45 minutes in this atmosphere *at rest*, except that the blood pressure of D fell. At the 70-minute reading the blood pressures of A and B had fallen perceptibly, though there was little or no change as to the blood pressure of C; and D, who was the youngest and perhaps the most vigorous of the four, had slightly increased blood pressure as compared with the 45-minute reading, which was probably due to slight exercise taken just previous to the last reading.

On this day the body temperature of the four investigators at rest at the face of the crosscut had risen slightly during the first 10 minutes after they had entered the place, and had risen perceptibly at the readings 45 and 70 minutes after entering, reaching a maximum of 102.6° F., in D at the 70-minute reading, he having carried a light ladder about 50 feet during the interval between the 45 and 70 minute readings. The maximum body temperature of A, B, and C (101.8° , 101.4° , and 101.5° , respectively) was reached at the 70-minute reading, and none of these men had exerted himself in the slightest degree, other than to take readings of temperature, blood pressure, etc. Pulse rate had started to rise slightly at the reading 10 minutes after entering the hot, humid, still atmosphere, and continued to rise at the 25, 45, and 70 minute readings, except that in case of B and D there was a slight fall in pulse beat between the 45 and 70 minute readings.

After having remained practically at rest 70 minutes at the face of this abandoned crosscut, in stagnant air $97\frac{1}{2}^{\circ}$ F. and 89 per cent relative humidity, all perspiring freely and having increased body temperature and pulse rate and decreased blood pressure, the men walked about 200 feet to a point where air was being discharged from the end of a canvas tube at a rate of 2,300 linear feet per minute, this air having a temperature of 82° wet bulb, $89\frac{1}{2}^{\circ}$ dry bulb, and a relative humidity of 80 per cent. A, B, and C stopped at the end of this pipe, and D went out to the shaft station. A sat with his head in the direct air current about 3 feet from the end of the canvas tube; B sat at one side somewhat out of the current; and C sat out of the current for 12 minutes and partly in the air current for 3 minutes. At the end of 15 minutes A's temperature fell from 101.8° to 100.9° F., pulse rate fell from 136 to 120, blood pressure rose from 98 to 106 systolic,

and from 68 to 82 diastolic. Meanwhile B, sitting a few feet distant in *still* air with essentially the same temperature and humidity as that of the *moving current* in which A sat, had only a slight bodily temperature decrease of from 101.4° to 101.2° , showing the decided influence of *air movement* even when the air had high temperatures. C, also sitting near A, but within the direct air current only 3 minutes, showed slight increase of bodily temperature, but had a marked rise in blood pressure and a very definite fall in pulse rate.

As in similar readings in Mine No. 1, there was a definite fall in blood pressure immediately upon reaching the surface, with subsequent slow increase and a return to normal after a good meal had been eaten.

Table IV gives data as to the effect of doing moderate work in an abandoned stope of mine No. 2, 3 floors down from 2,800-foot level, in practically stagnant air, with wet bulb $85\frac{1}{4}^{\circ}$ to 86° F. and relative humidity about 96 per cent—a condition typical of blind-end drift, crosscut, and stope faces in many deep mines. The four subjects remained practically at rest the first 55 minutes, the only effort being that due to climbing down from timber to timber for about 25 feet from the level to the stope below, this effort being reflected in the slightly increased bodily temperature and pulse rate at the 15-minute reading.

Just previous to the 65-minute reading, A and D started to exercise by climbing up and down ladders, B and C remaining at rest. A, who weighed 120 pounds, climbed up and down an 8-foot ladder 15 times in 5 minutes after taking the 55-minute reading; the 65-minute reading shows a slight *increase* in blood pressure, a decided increase in bodily temperature (from 99.5° to 100.3° F.), and an equally great increase in pulse rate. Just after the 65-minute reading, A again climbed up and down the 8-foot ladder 15 times in 5 minutes, and at the 85-minute reading his blood pressure had again risen slightly while temperature had risen from 100.3° to 100.9° , but the pulse remained at 128. D, who weighed 160 pounds, climbed the 8-foot ladder up and down 3 times in 40 seconds, starting immediately after the 55-minute reading (this allowed about 8 or 9 minutes rest before taking the 65-minute reading), and he showed practically no change in blood pressure or temperature, though his pulse rate jumped from 96 (which he had held uniformly while at rest during the first 55 minutes) to 108. Immediately after the 65-minute reading he again climbed up and down the 8-foot ladder 3 times in 40 seconds and rested about 18 minutes before the 15-minute reading, which again showed very little change of bodily temperature or blood pressure, but an increase of pulse rate from 108 to 132.

In this series of readings it is noticeable that there was comparatively little drop in blood pressure or increase in bodily temperature

TABLE IV.

Location.	Time in minutes after entering mine.	A.			B.			C.			D.			Air conditions.		
		Sys-tolic.	Diastolic.	Body temperature.	Pulse rate.	Sys-tolic.	Diastolic.	Body temperature.	Pulse rate.	Sys-tolic.	Diastolic.	Body temperature.	Pulse rate.	Wet bulb.	Dry bulb.	Relative humidity (per cent).
On surface.....	000	106	66	98.7	102	108	78	98.8	86	102	74	99.4	84	59½	64½	74
Slope, 3 floors down from level.....	15	110	80	99.6	108	104	78	98.8	120	98	74	99.3	80	85½	80½	96
Do.....	35	105	78	99.4	96	102	78	98.9	98	100	76	99.6	84	85½	80½	96
Do.....	55	104	82	99.5	96	100	78	98.9	104	98	76	99.7	84	85½	80½	96
Do.....	65	108	80	100.3	128	100	78	98.9	104	98	76	99.7	84	85½	80½	96
Do.....	85	110	84	100.9	128	100	72	98.9	100	96	72	99.8	86	85½	80½	96
Do.....	105	104	72	100.5	104	106	78	98.9	92	98	74	99.8	84	80	87	96
On surface 10 minutes.....	140	104	72	100.5	104	106	78	98.9	92	98	74	99.8	84	61	78	36

or pulse rate as long as the four investigators remained quiet in the still air with temperature $85\frac{1}{2}^{\circ}$ to 86° F. wet bulb and relative humidity 96 per cent. When light work was done, such as climbing up 24 feet of vertical ladder and then down, with 8 to 18 minutes rest before taking readings, there was little or no perceptible change of blood pressure or of bodily temperature, but a definite increase of pulse rate. On the other hand, when 120 feet of vertical ladder was climbed up and down in five minutes, with 3 to 14 minutes' rest before taking a reading, although blood pressure was affected only slightly, there was a perceptible increase in bodily temperature. As climbing up and then down 120 feet of vertical ladder in 5 minutes can not be called very strenuous work it would seem that any attempt at actual sustained performance of hard work under the above conditions would result in high body temperatures. Upon coming to the surface, all subjects gave readings that were almost normal, this being true of blood pressure and pulse rate and of bodily temperature in all but A, whose bodily temperature remained over 100° F., owing presumably to his having exercised somewhat more strenuously than his companions. None of the subjects experienced any unusual symptoms except A, who thought he became tired more easily than usual.

The above study, involving readings on a few men for a few days, and under comparatively little diversity as to conditions, is at best inconclusive, and it is recommended that much additional data be obtained in order to ascertain the effect on the human system of working in hot, humid, stagnant air, such as is so frequently found in our metal mines. Data should also be obtained as to the effect of hard work in cool mines on blood pressure, bodily temperature, pulse rate, etc.; and similar data should be ascertained for air with various temperatures, wet and dry bulb, and still as well as moving air, together with data on the effect of various kinds of mine air impurities, such as CO_2 , and the lack of oxygen on the human system.

Summary.

I. In still air in metal mines, with a wet bulb temperature over 90° F. and under 100° F., and with a relative humidity of 89 per cent or higher, the following signs and symptoms were found, even when little or no exercise was taken:

1. Blood pressure, systolic and diastolic, fell rapidly.
2. Body temperature rose; in one case it reached 102° F., and this after less than two hours having been spent in the hot, humid air described.
3. Pulse rate increased and seemed more sensitive to exercise than normally.
4. Perspiration was very profuse.
5. Dizziness was a common symptom, and sometimes was marked.

6. Physical weakness or exhaustion was marked in some cases and present in all.

7. Inability to think quickly or accurately was a very common symptom.

8. Nausea was occasionally found.

9. Headache was also occasionally found.

10. Loss of weight was especially marked in men who had been employed under above conditions over a period of years, but occurred even after exposure only a few days.

II. In still air, with wet bulb temperatures of from 85° F. to 86° F. and a relative humidity of 96 per cent, there were no marked changes in the blood pressure or body temperature, nor were the symptoms dizziness, physical weakness, and inability to think or act quickly, mentioned in I, found as long as the subjects remained at rest or took only light exercise. When moderate exercise was taken—climbing up and down an eight-foot ladder fifteen times in five minutes—the blood pressure and body temperature rose somewhat.

III. Blood-pressure readings taken after the subject had reached the cool air of the surface were found to vary considerably with men unaccustomed to high temperatures. Under conditions which resulted in a rise of body temperature to 100° F., or more, the systolic pressure fell, but where the conditions were such as not to cause the body temperature to rise above 100° F., there was a rise in the systolic pressure when the subjects reached the surface. In one man, long accustomed to hot, humid air, a fall of systolic pressure was also found. In three others, not accustomed to the conditions mentioned, there was a rise of systolic pressure.

IV. It was found that the body temperatures reached normal in from one to two hours after the subjects had reached the cool air of the surface after having been subjected to conditions that caused a rise above 100° F.

V. It was noted that a shower bath, beginning with tepid water and ending with a dash of cold water, had but little immediate effect upon the body temperature.

ACKNOWLEDGMENTS.

This study is based upon data which have in part been secured by C. A. Allen and K. T. Sparks, mining engineers, United States Bureau of Mines, to whom we express our grateful appreciation.

INDEX TO PUBLIC HEALTH REPORTS, VOL. 35, PART 1, 1920.

The index, with title page, to Vol. 35, Part 1 of Public Health Reports for 1920 is now available and may be had on application to the Surgeon General, United States Public Health Service, Washington, D. C.

DEATHS DURING WEEK ENDED JAN. 15, 1921.

[From the Weekly Health Index, Jan. 18, 1921, issued by the Bureau of the Census, Department of Commerce.]

Deaths from all causes in certain large cities of the United States during the week ended Jan. 15, 1921, infant mortality, annual death rate, and comparison with corresponding week of preceding years.

City.	Estimated population, July 1, 1921.	Week ended Jan. 15, 1921.		Average annual death rate per 1,000. ¹	Deaths under 1 year.		Infant mortality rate. ³	
		Total deaths.	Death rate. ²		Week ended Jan. 15, 1921.	Pre-vious year or years. ³	Week ended Jan. 15, 1921. ⁴	Corresponding week, 1919.
Akron, Ohio.....	229,195	40	9.1	^a 10.8	7	^a 4	67	106
Albany, N. Y.....	115,071	30	17.7	C 22.9	4	C 9	90	81
Atlanta, Ga.....	207,473	62	15.6	C 20.5	5	C 6	.....	.....
Baltimore, Md.....	751,537	207	14.4	A 19.1	30	A 26	84	98
Birmingham, Ala.....	185,514	67	18.8	A 16.2	11	A 5	.....	.....
Boston, Mass.....	757,634	198	13.6	A 19.9	26	A 38	70	97
Bridgeport, Conn.....	149,502	25	8.7	A 18.9	5	A 6	63	88
Buffalo, N. Y.....	518,568	123	12.4	C 16.0	20	C 37	77	119
Cambridge, Mass.....	110,169	22	10.4	A 17.0	3	A 5	54	70
Camden, N. J.....	119,672	42	18.3	.....	5	.....	.....	.....
Chicago, Ill.....	2,780,086	707	13.3	A 17.3	106	A 132	.....	.....
Cincinnati, Ohio.....	403,316	116	15.0	C 21.2	5	C 13	33	88
Cleveland, Ohio.....	831,132	201	12.6	C 13.1	31	C 33	83	95
Columbus, Ohio.....	245,388	84	17.9	C 13.9	12	C 9	139	94
Dallas, Tex.....	165,282	34	10.7	A 13.9	1	A 4	.....	.....
Dayton, Ohio.....	159,586	38	12.4	C 17.6	2	C 8	33	89
Denver, Colo.....	263,010	96	19.0	A 17.4	18	.....	.....	.....
Detroit, Mich.....	1,070,520	199	9.7	.....	49	.....	93	97
Fall River, Mass.....	120,688	24	10.4	C 18.2	7	C 13	105	119
Grand Rapids, Mich.....	141,197	52	19.2	C 12.8	4	C 4	68	85
Houston, Tex.....	144,108	24	8.7	.....	2	.....	.....	.....
Indianapolis, Ind.....	325,215	81	13.0	C 15.0	8	C 9	62	80
Jersey City, N. J.....	302,511	77	13.3	C 20.5	4	C 25	.....	.....
Kansas City, Kans.....	103,793	20	10.9	.....	1	.....	24	108
Kansas City, Mo.....	336,157	119	18.5	C 19.2	16	C 8	.....	.....
Los Angeles, Calif.....	610,269	201	17.2	A 17.6	19	A 14	90	67
Louisville, Ky.....	236,663	61	13.5	C 21.9	5	C 5	58	96
Lowell, Mass.....	113,433	40	18.4	A 17.1	6	A 7	97	124
Memphis, Tenn.....	165,389	34	10.7	C 22.9	4	C 4	.....	.....
Milwaukee, Wis.....	468,386	95	10.6	A 11.9	22	A 20	107	101
Minneapolis, Minn.....	392,717	90	12.0	C 9.3	10	C 12	57	65
Nashville, Tenn.....	119,536	33	15.3	C 24.1	3	C 6	.....	.....
New Bedford, Mass.....	125,012	28	11.7	A 16.6	7	A 9	108	122
New Haven, Conn.....	166,836	43	13.4	C 20.1	6	C 7	71	73
New Orleans, La.....	394,875	123	16.2	A 22.4	18	A 17	.....	.....
New York, N. Y.....	5,753,141	1,306	12.7	C 18.1	179	C 319	70	81
Norfolk, Va.....	121,291	28	12.0	.....	2	.....	35	108
Oakland, Calif.....	226,587	49	11.3	A 14.9	5	A 5	63	61
Omaha, Nebr.....	197,066	42	11.1	C 10.9	6	C 1	.....	.....
Philadelphia, Pa.....	1,865,494	499	13.9	^a 20.7	59	^a 80	71	91
Pittsburgh, Pa.....	596,241	192	16.8	C 25.6	36	C 45	128	114
Portland, Oreg.....	264,850	63	12.4	C 11.8	7	C 5	70	69
Providence, R. I.....	239,645	62	13.5	C 19.5	12	C 14	.....	.....
Richmond, N. Y.....	175,686	48	14.2	C 20.8	8	C 8	97	108
Rochester, N. Y.....	305,344	71	12.1	C 14.2	1	C 19	8	74
St. Louis, Mo.....	786,164	201	13.3	C 16.7	18	C 31	.....	.....
St. Paul, Minn.....	237,661	49	10.8	C 11.7	1	C 0	10	68
Salt Lake City, Utah.....	121,598	34	14.6	A 14.8	11	.....	170	77
San Francisco, Calif.....	522,546	152	15.2	C 14.6	11	C 6	64	62
Spokane, Wash.....	104,174	25	12.5	C 10.5	2	C 5	44	55
Springfield, Mass.....	135,559	26	10.0	.....	7	.....	106	84
Syracuse, N. Y.....	177,184	47	13.8	C 13.8	6	C 9	72	91
Toledo, Ohio.....	253,632	72	14.8	A 17.3	6	A 9	60	90
Trenton, N. J.....	122,760	34	14.4	A 24.4	7	A 10	.....	.....
Washington, D. C.....	454,026	128	14.7	A 17.3	13	A 10	76	85
Wilmington, Del.....	113,408	33	15.2	C 18.8	5	.....	.....	.....
Worcester, Mass.....	184,955	50	14.1	C 14.6	5	C 7	54	92
Yonkers, N. Y.....	103,381	24	12.1	A 19.0	4	A 7	91	80
Youngstown, Ohio.....	139,432	31	11.6	.....	4	.....	51	99

¹ Annual rates per 1,000 population.

² "A" indicates data for the corresponding week of the years 1913 to 1917, inclusive. "C" indicates data for the corresponding week of the year 1918.

³ Cities left blank are not in the registration area for births.

⁴ Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1920.

⁵ Data are based on statistics of 1915, 1916, and 1917.

Summary of information received by telegraph from industrial insurance companies for week ended Jan. 15, 1921.

Policies in force.....	45,700,065
Number of death claims.....	9,697
Death claims per 1,000 policies in force, annual rate.....	11.1

PREVALENCE OF DISEASE.

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring.

UNITED STATES.

CURRENT STATE SUMMARIES.

Telegraphic Reports for Week Ended Jan. 22, 1921.

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers.

ALABAMA.		CONNECTICUT—continued.	
	Cases.		Cases.
Chicken pox.....	26	Diphtheria:	
Diphtheria.....	13	Hartford.....	11
Hookworm.....	55	New Britain.....	12
Pellagra.....	1	New Haven.....	15
Pneumonia.....	11	Scattering.....	58
Scarlet fever.....	11	German measles.....	1
Smallpox:		Influenza.....	13
Jefferson County.....	55	Measles:	
Scattering.....	25	Canton.....	30
Typhoid fever:		Farmington.....	14
Talladega County.....	23	New Britain.....	45
Scattering.....	8	Wallingford.....	9
		Scattering.....	41
ARKANSAS.		Mumps.....	72
Chicken pox.....	31	Ophthalmia neonatorum.....	1
Diphtheria.....	24	Pneumonia (lobar).....	25
Influenza.....	75	Poliomyelitis.....	1
Malaria.....	20	Scarlet fever:	
Measles.....	53	Bridgeport.....	10
Ophthalmia neonatorum.....	1	Meriden (city).....	14
Pellagra.....	8	New Haven.....	36
Scarlet fever.....	22	Waterbury.....	12
Smallpox.....	11	Winchester.....	8
Tuberculosis.....	10	Scattering.....	71
Typhoid fever.....	9	Trichinosis.....	1
Whooping cough.....	34	Tuberculosis (all forms).....	28
		Whooping cough.....	129
CALIFORNIA.		DELAWARE.	
Cerebrospinal meningitis—San Francisco.....	5	Chicken pox.....	2
Influenza.....	30	Diphtheria.....	10
Lethargic encephalitis—Los Angeles.....	2	Influenza.....	12
Smallpox:		Malaria.....	1
Merced County.....	10	Measles.....	4
Sacramento.....	14	Pneumonia.....	9
San Francisco.....	55	Scarlet fever.....	4
Scattering.....	71	Tuberculosis.....	11
Typhoid fever.....	5	Whooping cough.....	4
CONNECTICUT.		FLORIDA.	
Anthrax.....	1	Diphtheria.....	20
Cerebrospinal meningitis.....	4	Influenza.....	4
Chicken pox.....	52	Malaria.....	6

FLORIDA—continued.

	Cases.
Ophthalmia neonatorum.....	1
Scarlet fever.....	14
Smallpox.....	32
Typhoid fever.....	19

GEORGIA.

Cerebrospinal meningitis.....	1
Chicken pox.....	40
Conjunctivitis (acute infectious).....	1
Diphtheria.....	14
Dysentery (bacillary).....	1
German measles.....	1
Hookworm.....	28
Influenza.....	26
Malaria.....	7
Measles.....	38
Mumps.....	7
Pneumonia.....	12
Scarlet fever.....	5
Septic sore throat.....	5
Smallpox.....	89
Tetanus.....	4
Tuberculosis (pulmonary).....	13
Typhoid fever.....	3
Whooping cough.....	6

ILLINOIS.

Cerebrospinal meningitis—Chicago.....	3
Diphtheria:	
Chicago.....	297
Evanston.....	8
Scattering.....	53
Influenza.....	270
Lethargic encephalitis:	
Alton.....	1
Anna.....	1
Chicago.....	22
Woodstock.....	1
Pneumonia.....	283
Scarlet fever:	
Bloomington.....	15
Chicago.....	200
Normal.....	8
Rockford.....	13
Springfield.....	42
Scattering.....	164
Smallpox:	
East St. Louis.....	9
Rockford.....	29
Springerton.....	8
Vandalia.....	17
Wayne County—Elm River Township.....	8
Scattering.....	108
Typhoid fever.....	15

INDIANA.

Diphtheria.....	54
Rabies in animals:	
Pike County.....	1
Vigo County.....	1
Scarlet fever.....	285
Smallpox.....	191
Typhoid fever.....	7

IOWA.

Cerebrospinal meningitis:	Cases.
Goldfield.....	1
Tama.....	3
Diphtheria.....	28
Scarlet fever.....	135
Smallpox:	
Bagley.....	19
Dubuque.....	53
Ottumwa.....	12
Shenandoah.....	42
Scattering.....	128

KANSAS.

Anthrax.....	2
Cerebrospinal meningitis.....	2
Chicken pox.....	108
Diphtheria.....	106
German measles.....	4
Influenza.....	13
Malaria.....	1
Measles.....	200
Mumps.....	17
Pneumonia.....	61
Poliomyelitis.....	1
Scarlet fever.....	195
Smallpox.....	118
Trachoma.....	1
Tuberculosis.....	36
Typhoid fever.....	4
Whooping cough.....	37

LOUISIANA.

Cerebrospinal meningitis.....	2
Diphtheria.....	17
Scarlet fever.....	12
Smallpox.....	113
Typhoid fever.....	20

MAINE.

Chicken pox.....	24
Diphtheria.....	32
German measles.....	2
Influenza.....	14
Lethargic encephalitis.....	1
Measles.....	212
Mumps.....	6
Pneumonia.....	10
Scarlet fever.....	35
Septic sore throat.....	3
Smallpox.....	3
Tuberculosis.....	18
Typhoid fever.....	28
Whooping cough.....	18

MARYLAND.¹

Chicken pox.....	109
Diphtheria.....	66
German measles.....	1
Influenza.....	82
Lethargic encephalitis.....	3
Measles.....	70
Mumps.....	22
Ophthalmia neonatorum.....	2
Pneumonia (all forms).....	115

¹ Week ended Friday.

MARYLAND—continued.

	Cases.
Scarlet fever.....	52
Septic sore throat.....	24
Smallpox.....	4
Trachoma.....	2
Tuberculosis.....	65
Typhoid fever.....	7
Whooping cough.....	127

MASSACHUSETTS.

Cerebrospinal meningitis.....	4
Chicken pox.....	284
Conjunctivitis (suppurative).....	4
Diphtheria.....	248
Dysentery.....	1
German measles.....	9
Influenza.....	39
Measles.....	523
Mumps.....	82
Ophthalmia neonatorum.....	22
Pneumonia (lobar).....	142
Polio-myelitis.....	1
Scarlet fever.....	259
Septic sore throat.....	3
Smallpox.....	6
Tuberculosis (all forms).....	158
Typhoid fever.....	6
Whooping cough.....	183

MINNESOTA.

Cerebrospinal meningitis—Minneapolis.....	1
Chicken pox.....	35
Diphtheria.....	68
Influenza.....	1
Measles.....	28
Pneumonia.....	3
Scarlet fever:	
Minneapolis.....	75
Scattering.....	68
Smallpox:	
Minneapolis.....	273
Scattering.....	307
Tuberculosis.....	59
Typhoid fever.....	7
Whooping cough.....	10

MISSISSIPPI.

Diphtheria.....	12
Scarlet fever.....	13
Smallpox.....	39
Typhoid fever.....	6

MISSOURI.

Cerebrospinal meningitis.....	4
Chicken pox.....	151
Diphtheria.....	181
Epidemic sore throat.....	22
Influenza.....	40
Measles.....	153
Mumps.....	28
Scarlet fever.....	195
Smallpox.....	258
Trachoma.....	4
Tuberculosis.....	65
Typhoid fever.....	8
Whooping cough.....	84

MONTANA.

	Cases.
Cerebrospinal meningitis—Billings.....	1
Diphtheria.....	18
Scarlet fever.....	24
Smallpox.....	34

NEBRASKA.

Chicken pox.....	41
Diphtheria.....	14
Influenza.....	1
Measles.....	12
Mumps.....	10
Scarlet fever:	
Omaha.....	8
Scattering.....	32
Smallpox:	
Omaha.....	10
Saline County.....	17
Wilber.....	9
Scattering.....	77
Tuberculosis.....	2
Typhoid fever.....	5

NEW JERSEY.

Cerebrospinal meningitis.....	5
Chicken pox.....	287
Diphtheria.....	211
Influenza.....	22
Measles.....	81
Pneumonia.....	151
Polio-myelitis.....	1
Scarlet fever.....	262
Smallpox.....	1
Trachoma.....	1
Trichinosis.....	1
Typhoid fever.....	4
Whooping cough.....	201

NEW MEXICO.

Chicken pox.....	10
Diphtheria:	
Berino.....	8
Scattering.....	18
German measles.....	1
Measles.....	178
Mumps.....	25
Pneumonia.....	13
Scarlet fever.....	13
Smallpox.....	2
Trachoma.....	2
Tuberculosis.....	41
Typhoid fever.....	3
Whooping cough.....	26

NEW YORK.

(Exclusive of New York City.)

Cerebrospinal meningitis:	
Frankfort.....	1
Penfield.....	1
Rensselaer.....	1
Diphtheria.....	349
Influenza.....	96
Lethargic encephalitis.....	5
Measles.....	1,514
Pneumonia.....	376

NEW YORK—continued.

Poliomyelitis:	Cases.
Buffalo.....	1
Dolgeville.....	1
Scarlet fever.....	398
Typhoid fever.....	25
Whooping cough.....	464

NORTH CAROLINA.

Cerebrospinal meningitis.....	4
Chicken pox.....	141
Diphtheria.....	43
German measles.....	3
Measles.....	421
Scarlet fever.....	28
Septic sore throat.....	2
Smallpox.....	90
Typhoid fever.....	3
Whooping cough.....	314

SOUTH DAKOTA.

Cerebrospinal meningitis.....	1
Chicken pox.....	12
Diphtheria.....	23
Influenza.....	2
Measles.....	11
Pneumonia.....	6
Scarlet fever.....	54
Smallpox.....	73
Tuberculosis.....	2
Typhoid fever.....	1

TEXAS.

Chicken pox.....	72
Diphtheria.....	20
Measles.....	26
Mumps.....	8
Paratyphoid fever.....	1
Scarlet fever.....	17
Smallpox.....	20
Trachoma.....	1
Typhoid fever.....	3

VERMONT.

Chicken pox.....	46
Diphtheria.....	4
Influenza.....	2
Measles.....	58
Mumps.....	7
Pneumonia.....	7
Scarlet fever.....	38
Smallpox.....	6
Typhoid fever.....	2
Whooping cough.....	42

VIRGINIA.

Smallpox:	Cases.
Bland County—Present.....	

WASHINGTON.

Chicken pox.....	100
Diphtheria.....	27
Measles.....	49
Mumps.....	11
Scarlet fever.....	65
Smallpox.....	103
Tuberculosis.....	3
Typhoid fever.....	9
Whooping cough.....	13

WEST VIRGINIA.

Diphtheria:	
Wheeling.....	12
Scattering.....	18
Measles:	
Bluefield.....	10
Charleston.....	139
Hinton.....	45
Wheeling.....	9
Scattering.....	5
Scarlet fever.....	22
Smallpox.....	14
Typhoid fever.....	3

WISCONSIN.

Milwaukee:	
Cerebrospinal meningitis.....	4
Chicken pox.....	55
Diphtheria.....	50
German measles.....	2
Measles.....	11
Scarlet fever.....	44
Smallpox.....	28
Tuberculosis.....	13
Typhoid fever.....	1
Whooping cough.....	15
Scattering:	
Cerebrospinal meningitis.....	1
Chicken pox.....	142
Diphtheria.....	81
Influenza.....	41
Measles.....	124
Poliomyelitis.....	1
Scarlet fever.....	189
Smallpox.....	232
Tuberculosis.....	15
Typhoid fever.....	4
Whooping cough.....	106

District of Columbia Report for Week Ended Jan. 15, 1921.

Chicken pox.....	47	Smallpox.....	1
Diphtheria.....	21	Tuberculosis.....	20
Influenza.....	2	Typhoid fever.....	4
Measles.....	14	Whooping cough.....	24
Scarlet fever.....	30		

SUMMARY OF CASES REPORTED MONTHLY BY STATES.

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State.	Cerebrospinal meningitis.	Diphtheria.	Influenza.	Malaria.	Measles.	Pellagra.	Pollomyelitis.	Scarlet fever.	Smallpox.	Typhoid fever.
1920.										
Connecticut (December)	3	523	32	6	197			608		35
Delaware (June)		12			164			40	1	7
Delaware (October)		40	2		7			30		21
Delaware (December)	1	27	41	3	11			50		15
Indiana (July)	3	96			274		1	216		56
Indiana (September)	2	122			26		7	195	112	99
Indiana (December)	2	515			137		1	1,085	794	66
Louisiana (December)	5	80	59	61	577	19	1	62	254	50
Maryland (December)	5	392	201	9	340		4	272	16	87
Michigan (December)		1,383			256		6	1,484	795	118
Minnesota (December)	5	149			94		3	191	1,430	48
Mississippi (December)	3	233	744	4,361	83	178		150	118	89
New Jersey (December)	3	1,049	120	4	384		2	805	1	48
New Mexico (November)		117	7	2	78			45	6	52
New Mexico (December)		140	2	1	219			44	7	30
Oklahoma (October)		671	1		2	8		85	195	87
Oklahoma (November)		363	18		40	13		74	54	8
Oklahoma (December)		1	265	22	73	1		125	104	35
Rhode Island (December)	3	188	4		207		1	116		8
South Dakota (December)	3	58	13		108			146	149	3
Virginia (December)	12	719	1,228	188	936	6	1	400	120	80
West Virginia (December)	2	290	127		463			228	255	64

RECIPROCAL NOTIFICATION.

Minnesota—December, 1920.

Cases of communicable diseases referred during December, 1920, to other State health departments by Department of Health of the State of Minnesota.

Disease and locality of notification.	Referred to health authority of—	Why referred.
Diphtheria: Queen township, Polk County.	Alkabo, Divide County, N. Dak.	Diphtheria bacilli were found in throat culture examination in Minnesota State Board of Health Jan. 14, 1921.
Tuberculosis: Thomas Hospital, Minneapolis.	Paulson, Divide County, N. Dak.	Released from Thomas Hospital an improved case, Oct. 18, 1920.
Bemidji, Beltrami County.	Alkabo, Divide County, N. Dak.	Tubercle bacilli in specimen examined Jan. 14 by Division of Preventable Diseases.
Thomas Hospital, Minneapolis.	Fargo, Cass County, N. Dak.	Was released from Thomas Hospital Oct. 4, 1920, unimproved.
Do.	Davenport, Cass County, N. Dak.	Was released from Thomas Hospital, improved case, Nov. 13.
Do.	Cogswell, Sargent County, N. Dak.	Was released from Thomas Hospital, improved case, Nov. 21.
Pokegama Sanatorium, Pine County.	Williston, Williams County, N. Dak.	Incipient case left Pokegama Sanatorium Nov. 4.
Do.	Gackle, Logan County, N. Dak.	Left Pokegama Sanatorium Nov. 27; advanced case.
Mayo Clinic, Rochester, Olmstead County.	York, R. R. No. 2, Benson County, N. Dak.	Moderately advanced, diagnosed by Mayo Clinic.
Pokegama Sanatorium, Pine County.	Powers Lake, Burke County, N. Dak.	Advanced case. Left for home, Powers Lake, Dec. 12.

RECIPROCAL NOTIFICATION—Continued.

Minnesota—December, 1920—Continued.

Cases of communicable diseases referred during December, 1920, to other State health departments by Department of Health of the State of Minnesota—Continued.

Disease and locality of notification.	Referred to health authority of—	Why referred.
Tuberculosis—Contd. Thomas Hospital, Minneapolis.	New Rockford, Eddy County, N. Dak.....	Improved case. Left for home, New Rockford, N. Dak.
Do.....	Fort Pierre, Stanley County, S. Dak.....	Left Thomas Hospital, improved case, for Fort Pierre, S. Dak., Nov. 11.
Pokegama Sanatorium, Pine County.	Sioux Falls, Minnehaha County, S. Dak.....	Released from Pokegama Sanatorium, Dec. 21, advanced case.
Mineral Springs Sanatorium, Goodhue County.	New Effington, Roberts County, S. Dak.....	Left for home, New Effington, advanced case.
Mayo Clinic, Rochester, Olmstead County.	Bloomington, Franklin County, Nebr.....	Left for Bloomington, improved case, Dec. 7.
Do.....	Vulcan, Dickinson County, Mich.....	Diagnosed advanced case, Mayo Clinic.
Do.....	Herrin, Williamson County, Ill.....	Diagnosed moderately advanced case, Mayo Clinic.
Nopeming Sanatorium, St. Louis County.	Chicago, Cook County, Ill.....	Left Nopeming Sanatorium, Oct. 19, condition improved.
Mayo Clinic, Rochester, Olmstead County.	Electra, Box 88, Wichita County, Tex.....	Diagnosed positive case at Mayo Clinic.
Pokegama Sanatorium, Pine County.	Glasgow Valley County, Mont.....	Left Pokegama Sanatorium for home, Glasgow, moderately advanced case.
Mayo Clinic, Rochester, Olmstead County.	Tripoli, Oneida County, Wis.....	Diagnosed at Mayo Clinic, advanced case.
Do.....	Boyd, R. R. No. 1, Chippewa County, Wis.....	Diagnosed at Mayo Clinic, moderately advanced case.
Sand Beach Sanatorium, Becker County.	Hillsdale, Barron County, Wis.....	Left Sand Beach Sanatorium, Dec. 10, improved case.
Pokegama Sanatorium, Pine County.	Ashland, Ashland County, Wis.....	Left Pokegama Sanatorium for home, Ashland, far advanced case.
Thomas Hospital, Minneapolis, Minn.	Bruce, Rusk County, Wis.....	Fatal case of tuberculosis, was taken to home at Bruce, Wis., from Thomas Hospital.
Pokegama Sanatorium, Pine County.	Cresco, Howard County, Iowa.....	A far advanced case of tuberculosis died at Pokegama, Dec. 8.

PLAGUE.¹

HUMAN CASES OF PLAGUE REPORTED.

Place.	Period covered.	Cases.	Deaths.	Remarks.
Florida:	1921.			
Pensacola.....	Jan. 1 to 22.....	0	0	
Louisiana:				
New Orleans.....	do.....	0	0	
Texas:				
Beaumont.....	do.....	0	0	
Galveston.....	do.....	0	0	

¹ A summary of the reports received of the occurrence of plague and the finding of plague-infected rodents in the United States during 1920 was published in Public Health Reports, Jan. 7, 1921, p. 15.

PLAGUE—Continued.

PLAGUE-INFECTED RODENTS.

Place.	Period covered.	Rodents found plague infected.
Florida:	1921.	
Pensacola.....	Jan. 1 to 19.....	0
	Jan. 20.....	1
Louisiana:		
New Orleans.....	Jan. 1 to 15.....	3
	Jan. 16 to 22.....	7
Texas:		
Beaumont.....	Jan. 1 to 22.....	0
Galveston.....	do.....	0

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921.

CEREBROSPINAL MENINGITIS.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. For cities for which the information is not available for the full six years, as many years as possible are included.

Place.	Median for previous years.	1921		Place.	Median for previous years.	1921	
		Cases.	Deaths.			Cases.	Deaths.
California:				New Hampshire:			
Los Angeles.....	0	1		Manchester.....	0	1	
San Francisco.....	0	1		New Jersey:			
Santa Barbara.....			1	Jersey City.....	0	1	
Illinois:				Passaic.....	0		1
Chicago.....	2	1	1	West New York.....	0		1
Freeport.....	0	1		New York:			
Galesburg.....	0		1	Buffalo.....	0		1
Huntington.....	0	1	1	New York.....	4	4	1
Maryland:				Schenectady.....	0	1	1
Baltimore.....	0	1		Ohio:			
Massachusetts:				Akron.....	0	1	
Boston.....	1	2	1	Lorain.....	0	1	
Malden.....	0	1	1	Pennsylvania:			
New Bedford.....	0	1		Philadelphia.....	0	2	
Michigan:				Rhode Island:			
Detroit.....	0	1	1	Providence.....		1	
Montana:				South Dakota:			
Butte.....	0		2	Sioux Falls.....	0	1	
Nevada:				Virginia:			
Reno.....	0	1	1	Richmond.....	0		1

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

DIPHTHERIA.

See Telegraphic weekly reports from States, p. 132; Monthly summaries by States, p. 136; and also, p. 145.

INFLUENZA.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alabama:			Massachusetts—Continued.		
Birmingham.....		1	Malden.....	2	
Mobile.....		2	Somerville.....	1	
Montgomery.....	1	1	Taunton.....		1
Arkansas:			Worcester.....	6	
Hot Springs.....	1		Michigan:		
California:			Detroit.....		1
Los Angeles.....	2		Fint.....	1	
San Diego.....	1		Highland Park.....	1	
San Francisco.....	4		Missouri:		
Colorado:			Kansas City.....		1
Denver.....		1	St. Louis.....	2	
Connecticut:			New Jersey:		
New Britain.....	8		Newark.....	14	
District of Columbia:			Passaic.....		1
Washington.....	2		Trenton.....	1	
Georgia:			New York:		
Atlanta.....	4		Albany.....	8	
Rome.....	2		Binghamton.....	5	
Idaho:			Buffalo.....	2	1
Boise.....	2		New York.....	134	9
Illinois:			Niagara Falls.....	1	1
Chicago.....	23	2	Saratoga Springs.....	4	
Danville.....	1		Schenectady.....	1	
Indiana:			North Carolina:		
Hammond.....		1	Durham.....		1
Kentucky:			Ohio:		
Louisville.....	2		Akron.....	1	
Louisiana:			Cincinnati.....	1	1
Alexandria.....	1		Cleveland.....	1	
Baton Rouge.....	2	2	Columbus.....		1
New Orleans.....		1	Oklahoma:		
Maine:			Tulsa.....	1	
Bangor.....	3		Pennsylvania:		
Portland.....	1		Philadelphia.....	3	1
Maryland:			Texas:		
Baltimore.....	30	3	Dallas.....	6	1
Cumberland.....	3	1	Vermont:		
Massachusetts:			Rutland.....	3	
Boston.....	3		Virginia:		
Brookline.....	1		Petersburg.....	1	
Cambridge.....	6		West Virginia:		
Everett.....	1		Fairmont.....	1	
Haverhill.....	2	1	Wisconsin:		
Lynn.....	3		Marinette.....	5	

LEPROSY.

California:	Cases.
San Francisco.....	1

MALARIA.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Arkansas:			Texas:		
Little Rock.....	1		Dallas.....	3	
California:			Waco.....	1	
Oakland.....	1				
Louisiana:					
Alexandria.....	9				

MEASLES.

See Telegraphic weekly reports from States, p. 132; Monthly summaries by States, p. 136; and also, p. 145.

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

PELLAGRA.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Georgia:			Tennessee:		
Atlanta.....		1	Memphis.....		1
South Carolina:					
Charleston.....		1			

PNEUMONIA (ALL FORMS).

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alabama:			Indiana—Continued.		
Birmingham.....		6	Fort Wayne.....		5
Mobile.....		1	Gary.....		2
Montgomery.....		3	Indianapolis.....		15
Tuscaloosa.....	2		Marion.....		1
Arizona:			Mishawaka.....		1
Tucson.....		4	Muncie.....		1
Arkansas:			Richmond.....		2
Hot Springs.....		1	South Bend.....		4
Little Rock.....	2		Terre Haute.....		1
California:			Kansas:		
Berkeley.....		2	Coffeyville.....	1	
Long Beach.....	2		Fort Scott.....		1
Los Angeles.....	57	12	Kansas City.....	4	
Oakland.....		4	Parsons.....		1
Pasadena.....	1		Topeka.....	6	4
Sacramento.....		6	Wichita.....		3
San Bernardino.....		2	Kentucky:		
San Diego.....		2	Covington.....		1
Santa Cruz.....	1	1	Lexington.....		2
Stockton.....		1	Louisville.....	6	6
Vallejo.....		2	Louisiana:		
Colorado:			Alexandria.....	1	
Colorado Springs.....		1	Baton Rouge.....	1	1
Denver.....		24	Lake Charles.....		1
Greeley.....		3	New Orleans.....		17
Pueblo.....		3	Maine:		
Connecticut:			Biddeford.....	1	
Bridgeport.....		9	Lewiston.....	1	1
Bristol.....	1	1	Portland.....	2	1
Greenwich.....	7	2	Sanford.....	1	1
Hartford.....		5	Maryland:		
Manchester.....	1		Baltimore.....	53	30
Meriden.....	4	1	Cumberland.....	3	2
New Britain.....	5	3	Massachusetts:		
New Haven.....		4	Arlington.....	1	
New London.....		4	Beverly.....	1	
Norwalk.....		3	Boston.....	47	27
Waterbury.....		3	Brookline.....	1	
Delaware:			Cambridge.....	6	4
Wilmington.....		10	Chelsea.....		3
District of Columbia:			Chicopee.....	1	1
Washington.....		22	Danvers.....		1
Georgia:			Easthampton.....	1	
Atlanta.....		10	Everett.....	1	
Brunswick.....	2		Fall River.....		11
Savannah.....		5	Frammingham.....		1
Illinois:			Gardner.....		1
Bloomington.....		2	Greenfield.....		1
Chicago.....	274	62	Haverhill.....	4	1
Danville.....	2		Holyoke.....	1	
East St. Louis.....		3	Lawrence.....		1
Elgin.....		1	Leominster.....	3	
Evanston.....	1		Lowell.....		7
Freeport.....		1	Lynn.....		2
Galesburg.....		2	Malden.....	4	8
Oak Park.....		1	Medford.....		1
Peoria.....		1	Newton.....	8	8
Quincy.....		1	Northampton.....	1	
Rockford.....		2	Plymouth.....		1
Rock Island.....	3		Quincy.....		3
Springfield.....	1	1	Salmon.....	3	1
Indiana:			Somerville.....	8	2
Bloomington.....		3	Springfield.....	6	5
East Chicago.....		3	Taunton.....		3
Evansville.....		4	Wakefield.....	1	1

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

PNEUMONIA (ALL FORMS)—Continued.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Massachusetts—Continued.			New York—Continued.		
Waltham.....	1	1	North Tonawanda.....		1
Woburn.....		2	Peekskill.....	8	3
Worcester.....		4	Port Chester.....	5	3
Michigan:			Rochester.....	11	4
Ann Arbor.....	1		Saratoga Springs.....	1	
Detroit.....	52	24	Schenectady.....	9	1
Flint.....	5	2	Syracuse.....	8	4
Grand Rapids.....	11	3	Troy.....	13	3
Highland Park.....	4	2	White Plains.....	4	1
Kalamazoo.....	7	1	Yonkers.....		5
Marquette.....	3	2	North Carolina:		
Muskegon.....		1	Charlotte.....		3
Pontiac.....	1		Greensboro.....		1
Minnesota:			Wilmington.....		7
Duluth.....	2	1	Ohio:		
Hibbing.....	1		Akron.....	6	
Minneapolis.....		13	Alliance.....		1
St. Paul.....		9	Barberton.....	1	
Missouri:			Chillicothe.....	1	
Independence.....	3	2	Cincinnati.....		13
Kansas City.....		16	Cleveland.....		25
St. Joseph.....		6	Columbus.....		7
Montana:			Dayton.....	1	
Anaconda.....		1	Lorain.....	2	
Butte.....	3	3	Mansfield.....	1	
Great Falls.....	2	2	Nevada.....		2
Missoula.....	1	1	Sandusky.....	1	
Nebraska:			Springfield.....		1
Omaha.....		8	Steubenville.....	2	
New Hampshire:			Oklahoma:		
Berlin.....		1	Muskogee.....	3	
Concord.....		1	Oklahoma City.....		2
Manchester.....		5	Oregon:		
Nashua.....		2	Portland.....		6
Portsmouth.....	2		Salem.....		1
New Jersey:			Pennsylvania:		
Atlantic City.....	2		Philadelphia.....		71
Bayonne.....	1		Rhode Island:		
Belleville.....	4		Cranston.....	4	4
Bloomfield.....	1		Pawtucket.....		9
East Orange.....	6		Providence.....		14
Elizabeth.....		4	South Carolina:		
Englewood.....	4		Charleston.....		4
Hackensack.....	4	1	Spartanburg.....		1
Harrison.....	2		South Dakota:		
Hoboken.....	2	1	Sioux Falls.....	1	1
Irvington.....	1		Tennessee:		
Jersey City.....	22		Memphis.....		6
Kearny.....	5	3	Nashville.....		2
Montclair.....	4	1	Texas:		
Morristown.....		2	Beaumont.....		2
Newark.....	133	18	Corpus Christi.....	1	
Orange.....	4		Dallas.....	10	6
Passaic.....	1		El Paso.....		11
Paterson.....	3		Waco.....		4
Perth Amboy.....		2	Utah:		
Phillipsburg.....		1	Salt Lake City.....		4
Plainfield.....		3	Vermont:		
Trenton.....	3	3	Rutland.....		1
Union.....	1		Virginia:		
West New York.....		1	Lynchburg.....		1
West Orange.....	1		Norfolk.....	2	
New Mexico:			Petersburg.....		1
Albuquerque.....		5	Richmond.....	3	5
New York:			Roanoke.....	2	2
Albany.....	14		West Virginia:		
Auburn.....	2		Charleston.....		4
Binghamton.....	17	2	Huntington.....		2
Buffalo.....	41	19	Wheeling.....		7
Cohoes.....	1	1	Wisconsin:		
Elmira.....		4	Beloit.....	3	1
Geneva.....		1	Green Bay.....		1
Glens Falls.....	3	2	Jamesville.....		2
Jamestown.....	5	2	Kenosha.....	3	
Lockport.....	1		Oshkosh.....		1
Mount Vernon.....	9	4	Racine.....		5
New York.....	510	226	Superior.....		3
Niagara Falls.....	4	1			

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

POLIOMYELITIS (INFANTILE PARALYSIS).

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. For cities for which the information is not available for the full six years, as many years as possible are included.

Place.	Median for previous years.	1921.		Place.	Median for previous years.	1921.	
		Cases.	Deaths.			Cases.	Deaths.
Illinois:				Missouri:			
East St. Louis.....	0	1		St. Louis.....	0	1	1
Kansas:				New York:			
Topeka.....	0	1		North Tonawanda.....		1	
Massachusetts:				Ohio:			
Boston.....	0		1	Norwood.....		1	
Michigan:				Sandusky.....	0	1	
Grand Rapids.....	0	1					

RABIES IN ANIMALS.

Place.	Cases.
Missouri—Kansas City.....	3

RABIES IN MAN.

Place.	Cases.	Deaths.
Tennessee—Memphis.....	1	1

SCARLET FEVER.

See Telegraphic weekly reports from States, p. 132; Monthly summaries by States, p. 136; and also p. 145.

SMALLPOX.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. For cities for which the information is not available for the full six years, as many years as possible are included.

Place.	Median for previous years.	1921		Place.	Median for previous years.	1921	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				Idaho:			
Birmingham.....	1	4		Boise.....	2	2	
Mobile.....	0	2		Illinois:			
Montgomery.....	0	3		Bloomington.....	0	9	
California:				Chicago.....	1	5	
Alameda.....	0	3		Danville.....	1	2	
Long Beach.....	1	2		East St. Louis.....	0	20	
Los Angeles.....	2	2		Kewanee.....	0	1	
Oakland.....	0	2		Mattoon.....	0	1	
Sacramento.....	0	12		Oak Park.....	0	2	
San Francisco.....	0	54		Quincy.....	0	1	
Colorado:				Rockford.....	0	21	
Colorado Springs.....	0	2		Rock Island.....	1	2	
Denver.....	9	7		Springfield.....	0	1	
Pueblo.....	0	3		Indiana:			
District of Columbia:				Bedford.....	0	1	
Washington.....	0	1		Bloomington.....	0	1	
Georgia:				Crawfordsville.....		4	
Atlanta.....	3	12		Elkhart.....	0	7	
Brunswick.....	0	1		Evansville.....	2	1	
Savannah.....	0	1		Fort Wayne.....	0	7	

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

SMALLPOX—Continued.

Place.	Median for pre- vious years.	1921		Place.	Median for pre- vious years.	1921	
		Cases.	Deaths.			Cases.	Deaths.
Indiana—Continued.				North Carolina:			
Frankfort.....		8		Charlotte.....	0	3	
Indianapolis.....	9	19		Winston-Salem.....	0	1	
La Fayette.....	1	1		North Dakota:			
Marion.....	0	6		Fargo.....	1	14	
Mishawaka.....	1	24		Ohio:			
Richmond.....	1	1		Akron.....	1	9	
South Bend.....	0	26		Cincinnati.....	1	7	
Terre Haute.....	0	6		Cleveland.....	4	3	
Iowa:				Columbus.....	0	3	
Burlington.....	0	1		Dayton.....	0	2	
Cedar Rapids.....	0	5		Hamilton.....		5	
Clinton.....	0	9		Lima.....	0	15	
Council Bluffs.....	1	3		Lorain.....	0	10	
Davenport.....	0	3		Mansfield.....		1	
Des Moines.....	1	4		Middletown.....	0	2	
Dubuque.....	0	36		New Philadelphia.....		1	
Mason City.....	4	2		Norwood.....	0	1	
Sioux City.....	2	42		Sandusky.....	1	1	
Kansas:				Toledo.....	4	2	
Hutchinson.....	0	1		Oklahoma:			
Kansas City.....	1	1		Oklahoma City.....	2	2	
Wichita.....	1	3		Tulsa.....		2	
Kentucky:				Oregon:			
Covington.....	0	1		Portland.....	4	39	
Louisville.....	0	2		South Carolina:			
Louisiana:				Charleston.....	0	5	
Alexandria.....	0	3		Columbia.....	0	2	
Baton Rouge.....	0	1		South Dakota:			
Monroe.....		3		Sioux Falls.....	1	3	
New Orleans.....	8	42	4	Tennessee:			
Maine:				Knoxville.....	0	1	
Waterville.....		2		Memphis.....	1	2	
Michigan:				Texas:			
Ann Arbor.....	0	3		Beaumont.....	0	4	
Battle Creek.....	0	7		Corpus Christi.....	0	1	
Benton Harbor.....	0	1		Dallas.....	25	7	
Detroit.....	5	22		Temple.....		1	
Grand Rapids.....	1	1		Waco.....	1	1	
Ishpeming.....	0	1		Utah:			
Kalamazoo.....	0	1		Salt Lake City.....	3	31	
Marquette.....	0	1		Vermont:			
Muskegon.....		2		Rutland.....	0	1	
Sault Ste. Marie.....	0	10		Virginia:			
Minnesota:				Roanoke.....	0	1	
Duluth.....	0	15		Washington:			
Mankato.....	0	1		Aberdeen.....	1	9	
Minneapolis.....	19	124		Bellingham.....	2	2	
St. Cloud.....	0	3		Seattle.....	5	6	
St. Paul.....	6	87		Spokane.....	28	41	
Virginia.....	0	1		Tacoma.....	0	7	
Winona.....	0	9		Yakima.....	15	4	
Missouri:				West Virginia:			
Kansas City.....	3	9		Bluefield.....	8	4	
St. Joseph.....	9	1		Parkersburg.....	1	3	
St. Louis.....	2	12		Wisconsin:			
Springfield.....	0	7		Appleton.....	2	1	
Montana:				Beloit.....	0	1	
Billings.....	1	1		Green Bay.....	0	3	
Great Falls.....	2	4		Janesville.....	1	1	
Nebraska:				Kenosha.....	0	1	
Omaha.....	6	13		La Crosse.....	0	6	
Nevada:				Madison.....	0	6	
Reno.....	0	1		Marquette.....	0	6	
New York:				Milwaukee.....	4	17	
Auburn.....	0	2		Racine.....	0	1	
New York.....	0	1		Sheboygan.....		29	
Schenectady.....	0	1		Wyoming:			
				Cheyenne.....	0	1	

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

TETANUS.

Place.	Cases.	Deaths.	Place.	Cases.	Deaths.
Alabama:			Nebraska:		
Mobile.....		3	Omaha.....	1	1
California:			New York:		
Los Angeles.....	1		New York.....	1	
Connecticut:			North Carolina:		
Birdgeport.....	1		Wilmington.....	2	2
Georgia:			Ohio:		
Savannah.....	1		Middletown.....	1	
Missouri:					
St. Joseph.....	1				

TUBERCULOSIS.

See Telegraphic weekly reports from States, p. 132, and also p. 145.

TYPHOID FEVER.

The column headed "Median for previous years" gives the median number of cases reported during the corresponding weeks of the years 1915 to 1920, inclusive. For cities for which the information is not available for the full six years, as many years as possible are included.

Place.	Median for pre- vious years.	1921		Place.	Median for pre- vious years.	1921	
		Cases.	Deaths.			Cases.	Deaths.
Alabama:				Massachusetts—Contd.			
Birmingham.....	1	1	1	Winthrop.....	0	1	
California:				Michigan:			
Long Beach.....	0	1		Detroit.....	4	1	
Los Angeles.....	3	1		Muskegon.....		1	
Sacramento.....	1	1		Minnesota:			
Colorado:				Minneapolis.....	0	1	1
Denver.....	0	2	2	St. Paul.....	1	4	1
Connecticut:				Missouri:			
Norwalk.....	0	1	1	St. Joseph.....	0	1	
Waterbury.....	0	1		St. Louis.....	3	3	
Delaware:				Nevada:			
Wilmington.....	0		1	Reno.....	0	2	
District of Columbia:				New Jersey:			
Washington.....	2	2		Kearny.....	0	1	
Georgia:				New York:			
Atlanta.....	0	2		Auburn.....	0	1	1
Savannah.....	0	4		Buffalo.....	1		1
Idaho:				New York.....	17	11	1
Boise.....	0	12	1	North Tonawanda.....	0	1	
Illinois:				Schenectady.....	0	1	
Chicago.....	6	5		Syracuse.....	0	1	
Danville.....	0	1		Troy.....	0	1	
East St. Louis.....	1	2		North Carolina:			
Rock Island.....	0	1		Winston-Salem.....	0	1	
Indiana:				Ohio:			
Fort Wayne.....	0		1	Cincinnati.....	1	1	
Hammond.....	0		1	Cleveland.....	4	2	
Iowa:				Dayton.....	0	1	
Burlington.....	0	1		Lima.....	0	1	
Muscatine.....	0	1		Lorain.....	0	1	
Kansas:				Norwood.....	0	1	
Atchison.....	0	1		Toledo.....	1	2	
Lawrence.....	0	1		Oklahoma:			
Topeka.....	0	1		Tulsa.....		1	
Kentucky:				Pennsylvania:			
Covington.....	0	1		Philadelphia.....	7	7	
Louisville.....	2	2		South Carolina:			
Louisiana:				Charleston.....	1	2	
New Orleans.....	5	3	1	Columbia.....	1	1	
Maine:				Texas:			
Auburn.....	0	1		Waco.....	1		1
Portland.....	0	2	1	Virginia:			
Maryland:				Norfolk.....	0	2	1
Baltimore.....	4	3		Richmond.....	1	2	1
Massachusetts:				Washington:			
Boston.....	2	2		Spokane.....	0	1	
Cambridge.....	0	1		West Virginia:			
Chelsea.....	0	1		Parkersburg.....	0	2	
Fall River.....	0	3		Wisconsin:			
Lawrence.....	0	4		Beloit.....	0	2	
Leominster.....	0	2		Green Bay.....	0	2	
Lowell.....	0	1	1	Madison.....	0	1	
Pittsfield.....	0	2		Racine.....	0	1	
Somerville.....	0		1	Sheboygan.....		4	

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS.

Place.	Popula- tion, Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Alabama:										
Anniston.....	17,734								1	
Birmingham.....	178,270	61	4		1		5		1	8
Mobile.....	60,151	24	5	1						2
Montgomery.....	43,464	21	1		1				2	2
Arizona:										
Tucson.....	20,202	20								12
Arkansas:										
Fort Smith.....	28,811		1				1			
Hot Springs.....	11,695	3								1
Little Rock.....	64,997				21		4		1	
North Little Rock.....	14,048	1			3		3			1
California:										
Alameda.....	28,806	9			2		3		1	1
Berkeley.....	55,886	17					1		2	1
Eureka.....	12,923	5					9		1	
Long Beach.....	55,593	10	2				2		1	
Los Angeles.....	576,673	196	59	3	120		15	1	39	22
Oakland.....	216,361		7		2		6		6	1
Pasadena.....	45,354	15	1		4		2		1	
Riverside.....	19,341	9	1		34					1
Sacramento.....	65,857	33	7				3		4	2
San Bernardino.....	18,721	7								1
San Diego.....	74,683	35	1	1	13				5	4
San Francisco.....	508,410	129	20	1	11		16	1	25	5
Santa Barbara.....	19,441	4								
Santa Cruz.....	10,917	2								
Stockton.....	40,256	10	1				1			2
Vallejo.....	21,107	4								1
Colorado:										
Colorado Springs.....	30,105	13	1		130		2		40	5
Denver.....	256,369	99	24	1	113	1	4			14
Greeley.....	10,883	3								
Pueblo.....	42,608		10	1	2		5			1
Trinidad.....	10,906				10					
Connecticut:										
Bridgeport (town) ¹	143,538	39	9		3		14	1		2
Bristol (town) ¹	20,620	4	2				1			
Greenwich (town) ¹	22,123	3	6		2				1	
Hartford (town) ¹	138,036	33	12		4		9	2	2	1
Manchester (town).....	18,370	3	1				1			
Meriden (city).....	29,842		3	1	1		12			
New Britain (town) ¹	59,316	15	17		38		1			1
New Haven (town) ¹	162,519	46	18	2	2		33		5	2
New London (town) ¹	25,688	8			1		2		1	
Norwalk (town) ¹	27,700	11	3						2	
Norwich (town) ¹	29,685	5	2				3		1	
Waterbury (town) ¹	91,410	16	2	1			9		5	1
Delaware:										
Wilmington.....	110,168	41	1				2			4
District of Columbia:										
Washington.....	437,571	136	24		15		37	1	16	11
Georgia:										
Atlanta.....	200,616	55	7		18		8	1	13	7
Brunswick.....	14,413	3								
Rome.....	13,252		2							
Savannah.....	83,252	38	2				1		3	2
Idaho:										
Boise.....	21,393	7					3			
Illinois:										
Alton.....	24,682	8	3	1			1			
Bloomington.....	28,725	8			1		10			1
Centralia.....	12,491	5								
Chicago.....	2,701,765	671	226	22	167	2	204	4	132	53
Danville.....	33,750	18	1				2			
East St. Louis.....	66,740	13	2				9			1
Elgin.....	27,454	5	1		14		2			
Evanston.....	37,215	6	7		1		2			
Freeport.....	19,669	7					1			
Galesburg.....	23,534	7	2		4		1			
Kewanee.....	16,026	5	6	1	2		18			
La Salle.....	13,050	4					2			1

¹ Coextensive with city of same name.

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

Place.	Population Jan. 1, 1921, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuberculosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Illinois—Continued.										
Oak Park.....	39,830	10	5		2		10		3	
Pekin.....	12,086		2				4			
Peoria.....	76,121	23	1		2		15			
Quincy.....	35,978	14			1		1			
Rockford.....	65,651	12	3		5					
Rock Island.....	35,177	8	2				2		1	
Springfield.....	59,183	25			10		56			
Indiana:										
Bloomington.....	11,595	8			1					
Crawfordsville.....	10,139	1	1				1		1	
East Chicago.....	35,967	12								
Elkhart.....	24,277	5	2				2		4	
Elwood.....	10,730	7								
Evansville.....	85,264	27	6	1			3		6	
Fort Wayne.....	86,519	15	2		4					
Frankfort.....	11,885	4					1			
Gary.....	55,378	9	5		3					
Hammond.....	36,001	2	2	1	1		4			
Huntington.....	14,000	6	1	1			4			
Indianapolis.....	314,194	88	11		23		6	1	7	6
Kokomo.....	30,067	7					3			
La Fayette.....	22,486	7	1				6			
Logansport.....	21,626	3								
Marion.....	23,747	8	3				3			
Mishawaka.....	15,195		1				1			
Muncie.....	36,521	7	1		9		6		1	
Richmond.....	25,765	10	2		2		2			
South Bend.....	70,983	12	3	1					1	
Terre Haute.....	66,083	12	3		2		12			
Iowa:										
Burlington.....	24,657	3	2				1			
Cedar Rapids.....	45,566		1							
Clinton.....	24,151		1							
Council Bluffs.....	36,162	10			1		2			
Davenport.....	56,727				2		5			
Des Moines.....	126,468		11		2		6			
Dubuque.....	39,141						4			
Iowa City.....	11,267		1							
Keokuk.....	14,424	3			3					1
Marshalltown.....	15,731									
Mason City.....	20,915	3	1				4			
Muscatine.....	16,068	8								
Sioux City.....	71,227			1			4			
Kansas:										
Atchison.....	12,630									
Coffeyville.....	13,452	0	1							
Fort Scott.....	10,603	2	8		1					
Hutchinson.....	23,298		5		1					
Kansas City.....	101,177		23				6		1	
Lawrence.....	12,456									
Leavenworth.....	16,912	3								
Parson.....	16,028	3	1				2		2	
Salina.....	15,08	2								
Topeka.....	50,022	12			15		9		4	
Wichita.....	72,128	32		1	2		12		4	
Kentucky:										
Covington.....	17,12	17	1				3		2	2
Lexington.....	41,534	23			1		2			1
Louisville.....	234,891	72	18	2	1		35		5	6
Paducah.....	21,735		5				1			
Louisiana:										
Alexandria.....	17,510	7								
Baton Rouge.....	21,782	6	1		1		2			
Lake Charles.....	13,088	3								
Monroe.....	12,675		3							1
New Orleans.....	387,211	150	10		181		8		30	15
Maine:										
Auburn.....	16,981	4	1		29				1	
Bangor.....	25,978				6		7			
Lewiston.....	31,791		3		21		1			
Portland.....	69,272	18			6					
Sanford.....	10,611	5					2			
Waterville.....	13,311		2							

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

Place.	Population Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Maryland:										
Baltimore.....	33,826	205	58	1			32		34	17
Cumberland.....	29,837	14	2		1		2		1	
Massachusetts:										
Adams.....	12,967	1	1							
Amesbury.....	10,036	2					1		1	
Arlington.....	18,665	2			1		1			
Attleboro.....	19,711	5	3				1			1
Beverly.....	22,561	8	1				1			1
Boston.....	748,060	2	1	1	54	1	47	4	10	12
Brookline.....	37,748	14	1						2	1
Cambridge.....	109,694	31	1		12		10		4	2
Chelsea.....	43,184	24	7	1	5		3		5	2
Chicopee.....	36,214	8	1				1			1
Clinton.....	12,979	7	1		30		1		1	2
Danvers.....	11,108	1	1		8				1	
Dedham.....	10,792	5							1	
Easthampton.....	11,261		2						3	
Everett.....	40,120	6	3		1		6		1	
Fall River.....	120,485	43	3		25	1	4	1	4	2
Frammingham.....	17,033	4			32					
Gardner.....	16,571	5					2			1
Greenfield.....	15,462	7	1				1		3	
Haverhill.....	53,884	15	8	1						2
Holyoke.....	60,203	17	2		1		2		1	
Lawrence.....	94,270	27	2		1		5			
Leominster.....	19,744	5	1	1	4					
Lowell.....	112,479	44	9	1	98	2	2		7	3
Lynn.....	99,148	27	6	1	3		7		7	4
Malden.....	49,103	16	4	1	3		7		2	
Medford.....	39,038	7	1		3		7			2
Melrose.....	18,204	8	1				3			
Methuen.....	15,189	5	1		1		7		2	1
New Bedford.....	121,217	29	14	2			3		5	2
Newburyport.....	15,618	5					3	1		1
Newton.....	46,054	9	4		23		3		1	
Northampton.....	21,951	4			5		1		1	
Peabody.....	19,552	2	1						4	1
Pittsfield.....	41,751	11	3		58		9		3	1
Plymouth.....	13,045	3								1
Quincy.....	47,876	9	1		1				2	1
Salem.....	42,529	15	1		2		5			
Somerville.....	93,691	28	2		2		5		4	1
Southbridge.....	14,245	2							1	
Springfield.....	129,563	37	3	1	2		33		4	4
Taunton.....	57,137	12	3		22		1		1	
Wakefield.....	13,025	2					1			
Waltham.....	30,915	16	1		3		3		1	1
Watertown.....	21,457	8			1		3			1
Westfield.....	18,604	8								1
Winthrop.....	15,455	2			4		2			1
Woburn.....	15,574	4								
Worcester.....	179,754	52	1		17		19	1		1
Michigan:										
Ann Arbor.....	19,516	5	2				1			
Battle Creek.....	36,164		6		1		4			
Benton Harbor.....	12,233	1								
Detroit.....	993,739	262	136	5	24	1	111	6	51	15
Flint.....	91,599	18	14				17			
Grand Rapids.....	137,634	36	15	1			12		5	1
Highland Park.....	46,499	6	3				11		2	
Holland.....	12,166	2					1			
Ironwood.....	15,739	2			31		2			
Ishpeming.....	10,500	0	1							
Kalamazoo.....	48,838	25	1		5		14			1
Marquette.....	12,718	6			1					
Muskegon.....	36,570	9		1			1	1		
Pontiac.....	24,273	12	1	1	1		11			1
Sault Ste. Marie.....	12,696	3					3			
Minnesota:										
Duluth.....	98,917	15	3		1		7		3	3
Hibbing.....	15,609		4		5					
Mankato.....	12,469	4								
Minneapolis.....	280,582	110	15	1	5		61		54	8
St. Cloud.....	15,873						2			

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

Place.	Popula- tion Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Minnesota—Continued.										
St. Paul.....	234,595	68	37	2	3		19	1	15	7
Virginia.....	14,022		2				1		1	
Winona.....	19,143		1				3			
Missouri:										
Cape Girardeau.....	10,252	5	1				2			
Independence.....	11,686	6	7		1		1			
Jefferson City.....	14,490	2								
Joplin.....	29,855		3							
Kansas City.....	324,410	74	15	2	14	1	17		2	9
St. Joseph.....	77,939	32	9	1			9			2
St. Louis.....	772,897	201	144	7	3		61	1	21	6
Springfield.....	39,631		6		1					
Montana:										
Anaconda.....	11,668	3					3			
Billings.....	15,109	6	1		10		3		1	
Butte.....	41,611	20			9					1
Great Falls.....	24,121	10	1		58		2		2	2
Missoula.....	12,668	5			7					
Nebraska:										
Lincoln.....	54,934	8	3		1		3		2	
Omaha.....	191,601	49	8	2	3		10			3
Nevada:										
Reno.....	12,016	4								
New Hampshire:										
Berlin.....	16,104	1			14		1			
Concord.....	22,167	8								
Dover.....	13,029	5	1	1	16		1			
Keene.....	11,210	1								
Manchester.....	78,384	22	21	1			5		2	4
Nashua.....	28,379	11			1		11			2
Portsmouth.....	13,369		1		1		1			
New Jersey:										
Atlantic City.....	50,682	19	7		1		2			2
Bayonne.....	76,754		5				6		4	
Belleville.....	15,660		1		1		2		1	
Bloomfield.....	22,019	1	1		1		1			
East Orange.....	50,710	4	5		2		8		1	
Elizabeth.....	95,682		7	1			9		5	2
Englewood.....	11,627	2					1			
Garfield.....	19,381		2							
Gloucester City.....	12,162						1		1	
Hackensack.....	17,667	7	9	1						
Harrison.....	15,721		4				1			
Hoboken.....	68,166	17	4		1		1		3	2
Irvington.....	25,480		1				2		1	
Jersey City.....	297,864	8	37		4		20		20	
Kearny.....	26,724		5				4			
Montclair.....	28,810	6	1		3					
Morristown.....	12,548	9		2			3			
New Brunswick.....	32,779		4				2			
Newark.....	414,216	109	39	4	26		55	1	30	7
Orange.....	33,268	8	3		2				1	
Passaic.....	63,824	17	1		8		7	1	2	1
Paterson.....	135,866		4				9		4	
Perth Amboy.....	41,707	10	3		6		5			
Phillipsburg.....	16,923	3	1	1						
Plainfield.....	27,700	13		1			5		1	
Rahway.....	11,042	1								
Trenton.....	119,289	33	4		2		4		2	2
Union.....	20,651		1		1		1		1	
West Hoboken.....	40,068	7	3						2	1
West New York.....	29,926	5	3						3	
West Orange.....	15,573	0	4				2		1	
New Mexico:										
Albuquerque.....	15,157	16	2		46				1	4
New York:										
Albany.....	113,344		7		25		2		7	
Auburn.....	36,192	8			1					
Binghamton.....	66,800	19	3		215		2			
Buffalo.....	306,775	127	65	5	51		19	1	21	9
Cohoes.....	22,987	10	1	1	3					2
Elmira.....	45,305	19					4			
Geneva.....	14,648	4								

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

Place.	Popula- tion Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
New York—Continued.										
Glens Falls.....	16,638	10			13					
Ithaca.....	17,004	6	1		5					
Jamestown.....	38,917	10	10				4			
Lockport.....	21,308	4							1	
Middletown.....	18,420		10	1	36		6			
Mount Vernon.....	42,726	7	2		1		1			
New York.....	5,621,151	1,409	513	27	86	1	497	14	271	119
Niagara Falls.....	50,760	18	6	1	4	1	19		1	1
North Tonawanda.....	15,482	5	6				1			
Ogdensburg.....	14,609	4								
Olean.....	20,506	3								
Peekskill.....	15,868	6			52		2			
Port Chester.....	16,573	8			2					
Rochester.....	295,750	53	82	4	3		40	2	7	3
Rome.....	26,341				8				1	
Saratoga Springs.....	13,181	4			18					
Schenectady.....	88,723	23	6	1	11		5		1	1
Syracuse.....	171,717	57	21	3	55		33		3	
Troy.....	72,013	19	4		157				1	1
White Plains.....	21,031	4	5		3					
Yonkers.....	100,226	21	8	1	2		7			4
North Carolina:										
Charlotte.....	46,338	19			98				2	
Durham.....	21,719	6	1							1
Greensboro.....	19,861	10								
Rocky Mount.....	12,742	6			5					
Wilmington.....	33,372	17	2		5		1			1
Winston-Salem.....	48,395	11			35				4	
North Dakota:										
Fargo.....	21,961	3					2			
Ohio:										
Akron.....	208,435	37	3		1		14		11	
Alliance.....	21,603	5	2				1			
Barberton.....	18,811	3			1					
Chillicothe.....	15,831	1								
Cincinnati.....	401,247	131			2		36		16	18
Cleveland.....	736,836	40	5		11		83	4	27	19
Columbus.....	237,031	63	10		2		23	1	5	4
Dayton.....	152,559	27	7				7		3	
East Cleveland.....	27,282		1				2			
Findlay.....	17,021	2					1			
Fremont.....	12,468	3					4			
Fremont.....	39,675	12								
Hamilton.....	14,007	5	1		1		11		1	1
Ironton.....	41,306	12					6			3
Lima.....	37,395		3		9		3			
Lorain.....	27,824	6			1		1		1	
Mansfield.....	27,891		2							
Marion.....	23,594	8	3							
Middletown.....	26,718	9	1				1		2	1
Newark.....	10,718						2			
New Philadelphia.....	24,966	2								
Norwood.....	15,044	0					4			
Piqua.....	22,897	5								
Sandusky.....	60,840	16	4		1		11	1	3	1
Springfield.....	28,508	14								
Steubenville.....	243,109	72	40	2	3		19		2	8
Toledo.....	29,569	14	2							
Zanesville.....										
Oklahoma:										
Muskogee.....	30,277		1							
Oklahoma City.....	91,258	17	2				3			1
Tulsa.....	72,075	6					2			
Oregon:										
Portland.....	238,288	48	12	2	71		9		7	2
Salem.....	17,679	9			1					
Pennsylvania:										
Philadelphia.....	1,823,158	502	86	4	27		234	4	71	46
Rhode Island:										
Cranston.....	29,407	8	1				3			
East Providence (town).....	21,793		3		3		1			
Newport.....	30,255	4	3				3			
Pawtucket.....	64,248	28	3	1			3		1	1
Providence.....	237,595	78	4	1	22	1	6			

¹ Pulmonary tuberculosis only.

CITY REPORTS FOR WEEK ENDED JAN. 8, 1921—Continued.

DIPHTHERIA, MEASLES, SCARLET FEVER, AND TUBERCULOSIS—Continued.

Places.	Popula- tion, Jan. 1, 1920, subject to correction.	Total deaths from all causes.	Diphtheria.		Measles.		Scarlet fever.		Tuber- culosis.	
			Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
South Carolina:										
Charleston.....	67,957	24	6		1				1	1
Columbia.....	37,524				5					
Spartanburg.....	22,638	8			1		1			
South Dakota:										
Sioux Falls.....	25,176	6	1		1		5			
Tennessee:										
Knoxville.....	77,819		1		1		3		2	2
Memphis.....	162,351	44	12		4		2		9	7
Nashville.....	118,342	49					2			3
Texas:										
Beaumont.....	40,422		1		1					
Corpus Christi.....	10,322	4					2			2
Dallas.....	158,976	38	9		2				10	2
El Paso.....	77,543	46	3				3			13
Galveston.....	44,255	11	8	1						1
Temple.....	11,033		1							
Waco.....	38,500	9	2							
Utah:										
Salt Lake City.....	118,110	36	1		500	3	9	1	4	3
Vermont:										
Barre.....	10,008						1			
Burlington.....	22,779	2					5			
Rutland.....	14,954	6			1					
Virginia:										
Alexandria.....	18,060	4			1					
Danville.....	21,539		2							
Lynchburg.....	29,956	7								2
Norfolk.....	115,777		3		26		5		4	2
Petersburg.....	31,002	15								1
Richmond.....	171,667	67	15	1	4		4		15	2
Roanoke.....	50,842	22	5		40	1	3			1
Washington:										
Bellingham.....	25,570				2		1			
Seattle.....	315,652		8				10			
Spokane.....	104,437				10		2			
Tacoma.....	95,965		3		3		7			
Vancouver.....	12,637		2				7			
Yakima.....	18,539						4			
West Virginia:										
Bluefield.....	15,582		2		15		6			
Charleston.....	39,608	18	1		100		2		1	
Fairmont.....	17,851		4							
Huntington.....	50,177	12	2				4			1
Martinsburg.....	12,515						1			
Morgantown.....	12,127		1		5					
Moundsville.....	10,669	3			2		1			
Parkersburg.....	20,050	2	1							
Wheeling.....	54,322	25	9		29		4		3	
Wisconsin:										
Appleton.....	19,561						1			
Beloit.....	21,284	5	2				1			2
Eau Claire.....	20,880		1		1		1		1	
Fond du Lac.....	23,427	8	7							
Green Bay.....	31,017	11	1		1		1			1
Janesville.....	18,293	9			1					
Kenosha.....	40,472	4	3				5			
La Crosse.....	30,363	6					2			
Madison.....	38,378	5			1		3		1	</

FOREIGN AND INSULAR.

FURTHER RELATIVE TO YELLOW FEVER ON VESSEL.

Steamship "Saveia," at Habana, Cuba, from Vera Cruz.

The steamship *Saveia*, from Vera Cruz, Mexico, arrived at Habana, Cuba, January 10, 1921,¹ three and one-half days from Vera Cruz, with three cases of sickness on board. The *Saveia* carried no passengers. The vessel had remained at Vera Cruz 18 days and during at least four days of her stay lay alongside of wharf. The cases of sickness developed the day before arrival at Habana. Two of the cases were confirmed as yellow fever at Habana January 11, 1921. On January 14 two other cases developed on board. These were confirmed as yellow fever January 15, 1921. The *Saveia* was fumigated at Vera Cruz January 6 and left the same day for Habana.

The *Saveia* left Cadiz, Spain, November 2, 1920, for Vera Cruz via West Indian ports, Porto Rico, and Habana. The present destination of the vessel from Habana is Santiago de Cuba; ultimate destination, Europe via West Indian ports.

CUBA.

Communicable Diseases—Habana.

Communicable diseases have been notified at Habana as follows:

Disease.	Dec. 1-10, 1920. ¹		Re- main- ing under treat- ment Dec. 10, 1920.	Disease.	Dec. 1-10, 1920. ¹		Re- main- ing under treat- ment Dec. 10, 1920.
	New cases.	Deaths.			New cases.	Deaths.	
Cerebrospinal meningitis.....	.....	.....	1	Malaria.....	113	2	² 116
Chicken pox.....	2	.....	7	Measles.....	14	.....	23
Diphtheria.....	6	2	6	Scarlet fever.....	.....	.....	4
Leprosy.....	.....	.....	12	Typhoid fever.....	38	7	³ 56

¹ Public Health Reports, Jan. 14, 1921, p. 61.

² From the interior, 23; from abroad, 2.

³ From the interior, 30; from abroad, 2.

JAMAICA.

Infectious Disease—(Alastrim or Kaffir Pox).

During the week ended January 1, 1921, 131 new cases of alastrim or Kaffir pox were reported in the Island of Jamaica.

¹ Previously reported at Habana January 12, 1921. Public Health Reports, Jan. 21, 1921, p. 102.

PERU.**Yellow Fever—Lambayeque.**

An outbreak of yellow fever was reported January 22, 1921, in the Department of Lambayeque, Peru.

ROUMANIA.**Measures Against Arrivals from Constantinople.**

According to information dated January 4, 1921, vessels having touched at Constantinople, Turkey, will be allowed to enter Roumanian waters only at the port of Constanza as long as plague continues to be reported in Constantinople.

TUNIS.**Plague—Zarzis.**

Ten cases of plague were reported January 15, 1921, at Zarzis, in the military territory of South Tunis.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER.**Reports Received During Week Ended Jan. 28, 1921.¹****CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Canton.....	Nov. 1-30.....	7	6	
Chosen (Korea).....				Aug. 1-Dec. 2, 1920: Cases, 24,017; deaths, 13,329.
India:				
Calcutta.....	Nov. 28-Dec. 4.....	40	34	
Rangoon.....	do.....	4	3	
Indo-China.....				July 1-31, 1920: Cases, 136; deaths, 98.
Japan:				
Taiwan Island.....	Dec. 1-10.....	116	30	
Philippine Islands:				
Provinces—				
Cagayan.....	Oct. 10-16.....	1	1	
Siam:				
Bangkok.....	Oct. 24-30.....	1		

PLAGUE.

Brazil:				
Porto Alegre.....	Dec. 12-18.....		1	
Ceylon:				
Colombo.....	Nov. 28-Dec. 4.....	15	11	
China:				
Hongkong.....	Dec. 5-11.....	2	2	Present in surrounding territory.
Egypt:				
Port Said.....	Oct. 22-28.....	1	1	
India:				
Madras.....	Dec. 5-11.....	1	1	Nov. 21-27, 1920: Cases, 1,843; deaths, 1,325.
Madras Presidency.....	do.....	984	623	
Rangoon.....	Nov. 28-Dec. 4.....	5	3	
Indo-China.....				July 1-31, 1920: Cases, 98; deaths, 74.
Peru:				
Callao-Lima.....	Oct. 1-Nov. 30.....		3	
Tunis:				
Zarzis.....	Jan. 15.....	10		In military territory, South Tunis.

¹ From medical officers of the Public Health Service, American consuls, and other sources.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received During Week Ended Jan. 28, 1921—Continued.

SMALLPOX.

Place.	Date.	Cases.	Deaths.	Remarks.
Bolivia:				
La Paz.....	Oct. 1-Nov. 30....	11	3	
Canada:				
Alberta—				
Calgary.....	Jan. 2-8.....	1		
Ontario—				
Hamilton.....	Jan. 9-15.....	8		
Montreal.....	Jan. 2-8.....	2		
North Bay.....	Jan. do.....	1		
Ottawa.....	Jan. 2-15.....	145		
Sault Ste. Marie.....	Jan. 2-8.....			A few cases.
Toronto.....	Jan. do.....	2		
Saskatchewan—				
Moose Jaw.....	Jan. do.....	1		
Regina.....	Jan. do.....	1		
Ceylon:				
Columbo.....	Nov. 28-Dec. 4....	5	2	
China:				
Amoy.....	Nov. 21-Dec. 4....		3	
Chungking.....	Nov. 14-27.....			Present.
Nanking.....	Dec. 5-11.....			Do.
Colombia:				
Santa Marta.....	Dec. 26-Jan. 1....			Do.
Cuba:				
Antilla.....	Jan. 2-8.....	8		For port of Preston.
Cienfuegos.....	Dec. 26-Jan. 8....			Stated to be present in virulent form in Province of Camaguey.
Nuevitas.....	Dec. 13-19.....	1		
Do.....	Jan. 3-9.....	1		
Danzie.....	Dec. 12-18.....	1		
Dominican Republic:				
France:				
St. Etienne.....	Dec. 3-15.....	2	1	Dec. 19-25, 1920: One case.
Greece:				
Saloniki.....	Nov. 15-Dec. 5....	13	2	In surrounding country, in 5 localities: Cases, 21; deaths, 2.
India:				
Madras.....	Dec. 5-11.....	2	1	
Rangoon.....	Nov. 28-Dec. 4....	1		
Indo-China:				
July 1-31, 1920: Cases, 107; deaths, 24.				
Italy:				
Palermo.....	Oct. 30-Nov. 12....	93	30	
Manchuria:				
Dairen.....	Nov. 16-Dec. 6....	7	2	
Mukden.....	Dec. 12-18.....			Prevalent.
Russia:				
Siberia—				
Vladivostok.....	Oct. 1-31.....	1		
Spain:				
Barcelona.....	Dec. 16-22.....		2	
Valencia.....	Dec. 19-25.....	1		
Tunis:				
Tunis.....	Dec. 14-28.....		13	

TYPHUS FEVER.

Chile:				
Cochimbo.....	Dec. 1-7.....		1	
Egypt:				
Alexandria.....	Dec. 10-16.....	1	1	
Cairo.....	Dec. 22-28.....	2	2	
Great Britain:				
Belfast.....	Dec. 19-25.....	10		
Greece:				
Drama.....	Nov. 22-28.....	1		
Saloniki.....	Nov. 28-Dec. 12....	12	1	
Japan:				
Nagasaki.....	Nov. 28-Dec. 13....	6		
Manchuria:				
Harbin.....	Nov. 22-28.....	1		On Eastern Chinese Railway.
Manchuria Station.....	Jan. do.....	2		Do.
Mexico:				
San Luis Potosi.....	Dec. 26-31.....			Present.
Turkey:				
Constantinople.....	Dec. 19-25.....	8	1	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**Reports Received During Week Ended Jan. 28, 1921—Continued.****YELLOW FEVER.**

Place.	Date.	Cases.	Deaths.	Remarks.
Mexico: Vera Cruz.....	Jan. 10-16.....	1		
Peru: Department— Lambayeque.....	Jan. 22.....			Outbreak.
On vessel: S. S. Savoia.....	Jan. 15.....	2		At Habana, from Vera Cruz. Two of the three cases previously reported have been confirmed.

Reports Received from Jan. 1 to 21, 1921.²**CHOLERA.**

Place.	Date.	Cases.	Deaths.	Remarks.
China: Changsha.....	Nov. 29.....			Present.
Chungking.....	do.....			Do.
Chosen (Korea).....				Nov. 19-25, 1920: Deaths, 22.
India: Calcutta.....	Oct. 31-Nov. 27.....	124	113	Sept. 26-Oct. 9, 1920: Deaths, 2,672.
Japan: Taiwan Island (Formosa).....	Nov. 11-30.....	77	58	
Java: West Java.....	Oct. 29-Nov. 11.....	2	1	Oct. 29-Nov. 11, 1920: Cases, 2; deaths, 1.
Philippine Islands: Manila.....	Nov. 7-Dec. 4.....	5		
Provinces: Cagayan.....	Oct. 3-9.....	5	3	Jan. 10-Oct. 30, 1920: Cases, 80; deaths, 51.
Samar.....	Aug. 1-7.....	1	1	
Poland: Eastern Frontier— Bialystok.....	Dec. 16.....			Present.
Grodno.....	do.....			Do.
Ostia.....	do.....			Do.
Posen.....	do.....			Present in Russian prison camp.
Stralkowo.....	do.....	1	1	Present.
Strelno.....	do.....	5		
Warsaw.....	do.....			
Siam: Bangkok.....	Oct. 9-Nov. 13.....	4		

PLAGUE.

Algeria: Algiers.....	Nov. 1-30.....		1	
Azores: St. Michaels.....				Total, Oct. 1-Dec. 10, 1920: Cases, 149; deaths, 49. In vicinity of Ponta Delgada.
Brazil: Bahia.....	Oct. 31-Nov. 13.....	4		
Porto Alegre.....	Nov. 14-Dec. 11.....		3	
Pernambuco.....	Oct. 18-Nov. 14.....	9	1	
British East Africa.....				Total for Kenya Colony, Nov. 8, 1920: Cases, 1,067.
Kisumu.....	Oct. 31-Nov. 6.....			Present.
Mombasa.....	do.....	1	1	
Nairobi.....	Oct. 31-Nov. 13.....	6	2	
Uganda.....	May 1-June 30.....	111	103	Entire Protectorate.
Do.....	July 1-Nov. 5.....	259	63	Do.

² From medical officers of the Public Health Service, American consuls, and other sources. For reports received from June 26 to Dec. 31, 1920, see Public Health Reports for Dec. 31, 1920. The tables of epidemic diseases are terminated semiannually and new tables begun.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Jan. 1 to 21, 1921—Continued.

PLAGUE—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
Ceylon:				
Colombo.....	Nov. 7-27.....	20	17	
Chile:				
Antofagasta.....	Nov. 24-Dec. 5.....	6	2	
China:				
Hongkong.....	Nov. 7-20.....	3	3	
Ecuador:				
Guayaquil.....	Nov. 16-30.....	18	7	
Egypt:				Jan. 1-Nov. 25, 1920: Cases, 456; deaths, 264.
Cities—				
Suez.....	Nov. 18-24.....	6	3	
Provinces—				
Assiout.....	Nov. 21.....	3	2	
France:				
Marseille.....	June-Aug. 31.....	58	20	
Paris.....	June-Oct. 15.....	50	11	In suburbs, June-Nov. 2, 1920: Cases, 38; deaths, 19.
Great Britain:				
Dublin.....				1 case reported Dec. 15, 1920; date of occurrence, Oct. 18, 1920.
Liverpool.....				Plague-infected rat found, period Nov. 28-Dec. 11, 1920.
Greece:				
Kavala.....	Oct. 25-Nov. 7.....	2		
India:				Oct. 24-Nov. 20, 1920: Cases, 9,589; deaths, 6,333.
Madras Presidency	Nov. 14-Dec. 4.....	1,347	885	
Rangoon.....	Oct. 31-Nov. 27.....	13	12	
Mesopotamia:				
Bagdad.....	Oct. 1-31.....	25	7	
Mexico:				
Carbonera.....	Dec. 5-20.....	3	1	State of San Luis Potosi.
Do.....	Dec. 26-Jan. 1.....	2		
Cerritos.....	Dec. 5-20.....	7	8	Do.
Do.....	Dec. 26-Jan. 1.....	1		
Russia:				
Batum.....	Nov. 24-Dec. 3.....	38		Epidemic outbreak.
Straits Settlements:				
Singapore.....	Oct. 31-Nov. 6.....	1	1	
Turkey:				
Constantinople.....	Nov. 21-27.....	1	2	

SMALLPOX.

Austria.....				Aug. 29-Nov. 6, 1920: Cases, 62.
Brazil:				
Bahia.....	Oct. 31-Nov. 13.....	3		
Pernambuco.....	Oct. 18-Nov. 14.....	77	1	
Rio de Janeiro.....	Oct. 24-Dec. 11.....	93	23	
British East Africa:				May 1-June 30, 1920: Cases, 272.
Uganda.....				
Bulgaria:				
Sofia.....	Nov. 7-13.....	2		
Canada:				
Alberta—				
Calgary.....	Dec. 12-18.....	2		
British Columbia—				
Vancouver.....	Dec. 5-11.....	1		
New Brunswick—				
Restigonche County.....	Dec. 12-18.....	1		
Ontario—				
Hamilton.....	Dec. 19-31.....	9		
Do.....	Jan. 2-8.....	10		
Niagara Falls.....	Dec. 12-18.....	1		
North Bay.....	Dec. 12-25.....	4		
Ottawa.....	Dec. 12-25.....	75	1	
Do.....	Dec. 26-Jan. 1.....	64		
Toronto.....	Dec. 12-25.....	7		
Do.....	Dec. 26-Jan. 1.....	10		
Saskatchewan—				
Moose Jaw.....	Dec. 19-25.....	1		
Regina.....	Dec. 12-25.....	11		
Saskatoon.....	Dec. 16-22.....	20		
Ceylon:				
Colombo.....	Nov. 21-27.....	3	3	

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.**Reports Received from Jan. 1 to 21, 1921—Continued.****SMALLPOX—Continued.**

Place.	Date.	Cases.	Deaths.	Remarks.
China:				
Amoy.....	Nov. 7-20.....	.....	2	
Chungking.....	Nov. 7-13.....	.....	.....	Present.
Foochow.....	Nov. 7-27.....	.....	.....	Do.
Nanking.....	Nov. 14-Dec. 4.....	.....	.....	Do.
Tientsin.....	Nov. 14-Dec. 4.....	2	.....
Tsinanfu.....	Oct. 31-Nov. 12.....	20	.....	Statistics of Shantung Christian Hospital.
Colombia:				
Santa Marta.....	Dec. 5-25.....	.....	.....	Present.
Cuba:				
Antilla.....	Dec. 7-27.....	10	.....	For port of Preston.
Habana.....	Dec. 31-Jan. 5.....	5	.....
Nuevitas.....	Dec. 6-12.....	1	.....	From Lugareno, a small station on railway, 16 miles distant.
Santiago.....	Nov. 20-Dec. 10.....	26	.....	July 11-Aug. 14, 1920: Cases, 141; deaths, 29.
Czechoslovakia.....				
Danzig.....	Dec. 5-11.....	1	.....
Dominican Republic.....				Nov. 15-Dec. 7, 1920: Cases, 8; occurring in 4 localities.
Ecuador:				
Guayaquil.....	Nov. 16-30.....	7	1	
Egypt:				
Cairo.....	Oct. 1-7.....	1	.....
France:				
Paris.....	Nov. 1-10.....	1	1	
Rouen.....	Nov. 21-Dec. 11.....	6	2	
Germany.....				Aug. 29-Nov. 6, 1920: Cases, 40.
Great Britain:				
Glasgow.....	Dec. 5-25.....	11	2	
Haiti:				
Port au Prince.....	Sept. 22-Dec. 2.....	486	2	In 8 interior towns, 20 cases. In 1 locality, 18 cases. In country district, vicinity of Port au Prince, cases numerous.
India.....				Sept. 26-Oct. 9, 1920. Deaths, 250.
Bombay.....	Nov. 7-13.....	1	1	
Madras.....	Nov. 14-Dec. 4.....	5	3	
Rangoon.....	Nov. 21-27.....	1	.....
Java:				
West Java.....				Nov. 12-18, 1920: Cases, 37; deaths, 2.
Batavia.....	Nov. 12-18.....	4	1	
Jugo-Slavia.....	July 25-Aug. 28.....	128	42	Feb. 7-13, 1920. Cases, 122; deaths, 27.
Madeira:				
Funchal.....	Dec. 5-18.....	.....	2	
Mexico:				
Chihuahua.....	Dec. 6-26.....	11	3	
Do.....	Dec. 27-Jan. 2.....	.....	3	
Federal District.....	Nov. 14-27.....	8	.....	Including Mexico City.
Portugal:				
Lisbon.....	Nov. 28-Dec. 4.....	.....	1	
Portuguese East Africa:				
Lourenco Marques.....	Oct. 24-Nov. 13.....	9	.....
Quelimane.....	do.....	3	.....
Russia:				
Reval.....	Oct. 1-31.....	3	.....
Riga.....	Nov. 1-7.....	5	.....
Spain:				
Barcelona.....	Nov. 18-Dec. 15.....	.....	8	
Corunna.....	Dec. 12-18.....	.....	1	
Valencia.....	Dec. 5-18.....	2	.....
Syria:				
Aleppo.....	Nov. 14-Dec. 4.....	.....	.....	Present in orphanage and French camps.
Tunis:				
Tunis.....	Nov. 30-Dec. 13.....	10	5	
Turkey:				
Constantinople.....	Nov. 21-Dec. 11.....	4	.....
Union of South Africa:				
Johannesburg.....	Oct. 1-31.....	1	.....
On vessels:				
S. S. Alfonso XIII.....	Dec. 27.....	1	.....	At Habana, Cuba, from ports in northern Spain.
S. S. Cadiz.....	Jan. 5.....	1	.....	At Habana, Cuba, from Mediterranean ports.
S. S. Ohioan.....	Jan. 4.....	1	.....	At San Pedro, Calif., from New York, via Balboa, Canal Zone.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued.

Reports Received from Jan. 1 to 21, 1921—Continued.

TYPHUS FEVER.

Place.	Date.	Cases.	Deaths.	Remarks.
Belgium:				
Ghent.....	Dec. 12-18.....	5		
Chile:				
Concepcion.....	Nov. 1-22.....		17	
Valparaiso.....	Oct. 25-Nov. 27.....		13	
Czechoslovakia.....				July 11-Aug. 28, 1920: Cases, 138; deaths, 18.
Danzig.....	Dec. 20.....	1		In emigrant from Brest Litovsk with two weeks' stay at Warsaw.
Egypt:				
Alexandria.....	Nov. 19-Dec. 9.....	8	5	
Cairo.....	Oct. 1-21.....	19	9	
Germany.....				Sept. 12-Nov. 13, 1920: Cases, 69.
Great Britain:				
Belfast.....	Dec. 5-11.....	3		
Dublin.....	Nov. 28-Dec. 18.....	4	3	
Greece:				
Saloniki.....	Oct. 25-Nov. 7.....	6	3	
Serres.....	Nov. 8-14.....	1		
Hungary.....				Aug. 3-Oct. 3, 1920: Cases, 9.
Italy.....				Typhus fever was erroneously reported at Catania and Trieste in Public Health Reports, July 23 and 30, 1920, and in succeeding numbers.
Japan:				
Nagasaki.....	Nov. 15-21.....	2		
Jugo-Slavia.....	July 25-Aug. 28.....	27	5	Feb. 7-13, 1920: Cases, 84; deaths, 2.
Mexico:				
Federal District.....	Nov. 14-27.....	35		Including Mexico City.
San Luis Potosi.....	Dec. 5-25.....			Present.
Poland:				
Warsaw.....	Dec. 16.....	8		
Portugal:				
Oporto.....	Nov. 28-Dec. 4.....	1		
Russia:				
Reval.....	Sept. 1-Oct. 31.....	186		
Riga.....	Nov. 1-7.....	17		
Turkey:				
Constantinople.....	Nov. 21-Dec. 11.....	17		

YELLOW FEVER.

Mexico:				
Orizaba.....	Dec. 5-18.....	2	1	
Papantla.....	.....do.....	8	2	
Tampico.....	Dec. 12-18.....	1	1	
Tuxpam.....	Dec. 5-18.....	9	4	
Do.....	Dec. 26-Jan. 1.....	5	1	
Vera Cruz.....	Dec. 5-26.....	8	3	
Do.....	Dec. 26-Jan. 1.....	1		
Zamora.....	Dec. 12-18.....	1	1	Also called Gutierrez. State of Vera Cruz.
On vessel:				
S. S. Savoia.....	Jan. 12.....	3		At Habana, Cuba, from Vera Cruz, Mexico.

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